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ABSTRACT

This grant's goals for high school teachers were threefold: (1) in the core courses and elective classes to collaborate and create lessons with a central theme; (2) become proficient with computer technology and utilize Internet resources as integral components of their lessons; and (3) enrich, enliven, and update the content of their classes using a humanities focus and facilitate meeting the standards of the assessments of the state of Ohio. To establish the frequency of their use of lesson plans using the Internet and to gauge their experience with interdisciplinary projects, grant co-directors devised an instrument to assess the team's knowledge of Mayan culture and history. The same instrument was given to the team at the beginning of the project and at the end of the project. After lengthy discussion, the team reached consensus on the design and theme of the project: the "Virtual Child" concept was adopted as part of the delivery system. After the "Narrative Description", this report is divided into twelve appendices: (1) "Appendix A" (The Problem and Attachment: 'The Virtual Child and Galactic Federation Research Guide'); (2) "Appendix B" (Conflict E-Mail); (3) "Appendix C" (Big Questions and Leading Questions); (4) "Appendix D" (Survey Results); (5) "Appendix E" (Publicity); (6) "Appendix F" (Pretest/Posttest for 'Schools for the New Millennium' Planning Grant); (7) "Appendix G" (Student Interests Survey); (8) "Appendix H" (Student Pretest); (9) "Appendix I" (Charts Illustrating Schedules for Week); (10) "Appendix J" (Charts Illustrating Student's Week Schedule and Timing of Leading Questions via E-Mail); (11) "Appendix K" (Placement of Virtual Child in School Year); and (12) "Appendix L" (Interdisciplinary Lessons (Art Lesson; Math Lesson; Music Lesson; STD's Lesson; Foods Lesson; Culture Lesson; Disease Lesson; Ball Game Lesson; Government Lesson; Language Arts Lesson; Communications and Conflict Lesson)). (BT)

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FINAL PERFORMANCE REPORT

The National Endowment for the Humanities "Schools for a New Millennium" Planning Grant

Grant #ED-21563-99

Links Across the Curriculum, Culture, and Time

Project Directors:
Barrie S.D. Archer and Jeanne Barrett

Award Receipient:
Beaver Local Board of Education

Submission Date:
November 30, 2000

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Narrative Description

a. Project Activities:

Content knowledge of the Maya culture was provided by lectures by our consulting scholars; Dr. Peter Dunham, Dr. Olivier DeMontmollin, Dr. Warren Young, and Mr. Carl Cheuy. Team members acquired additional knowledge from the readings, *Incidents of Travel in the Yucatan*, *Yucatan Before and After the Conquest*, and *I, Rigoberta Menchu*. Dr. James McConnell presented innovative educational structures and strategies. The consulting scholar's sessions were on schedule as outlined in the proposal.

Barrett and Archer presented the materials acquired at the Grant Wiggins presentation at the National Endowment for the Humanities meeting. Barbara Podbielski attended a University of Pittsburgh workshop entitled "From Global to Local, Causes and Costs of Ethnic Conflict". She used the information gathered at that workshop to assist the team with the topic of conflict. While attending the workshop Podbielski made supporting contacts with the Center of Latin American Studies. Dave Andres presented the interdisciplinary projects that he designed and implemented at Beaver Local Middle School.

Team members John Deichler and Barbara Podbielski provided guidance with effective internet research techniques and website evaluation. John Diechler demonstrated the use of the Elmo. Deichler also addressed protocol and procedures for IDVL video conferencing. Connie Shive demonstrated the use of *PowerPoint* and Zip Drives. Jeanne Barrett demonstrated how to capture images from the Internet and how to insert them into a document. Barrie Archer demonstrated the use of a digital camera. Technology consultant, Mike Oakley, provided guidance using a CD Writer and with the software, *Binder*.

The CD Roms *Virtual Globe*, *Exploring the Lost Maya*, and *StarSites* were previewed. Preliminary computer researching was done to find sites to serve as a basis for lesson plans and to construct a trial *PowerPoint* presentation. Team members did become more proficient in researching the internet, and in using internet research and technology.

The remainder of the grant period was spent creating an interdisciplinary technology-based and problem-based course for the high school level. (See Grant Products below.)

Omissions and Changes in Project Activities

The technology presentations from the outside source were postponed for a month. Inclement weather conditions necessitated rescheduling.

The two co-directors did not present their scheduled interdisciplinary lessons to the team to serve as a model as the team was experiencing difficulty reaching consensus in the overall design and content of the project. Time was limited and the co-directors felt that helping the team reach consensus was more pressing and more integral to the successful culmination of the project. Nor were the co-directors able to use lesson plans produced by the team members in the second semester class, The Traveling Classroom, because the team lesson plans were not completed during the school year.

The last third of the school year the co-directors helped the team understand the overall design of the project and each member's role. Teachers had to internalize a different delivery system of information; the teacher as facilitator and the student as active learner. The internalization process is gradual and often lengthy. Consequently, the co-directors requested an extension to August 31, 2000, in order to allow additional time for members to develop and write lesson plans based on web sites.

1

b. Accomplishments

The goals of the grant were threefold. The first goal was for high school teachers in the core courses and elective classes to collaborate and create lessons with a central theme. This goal was successfully met. The grant originally stated that these lessons would be implemented. As construction of the course took longer than anticipated, implementation was incomplete. Only some of the instructors were able to participate in the course *The Traveling Classroom* (renamed *The Yucatan and Beyond*).

The second goal was for high school teachers to become proficient with computer technology and to utilize Internet resources as integral components of their lessons. This goal was successfully met. The co-directors have observed the instructors who were involved in the project utilizing computer-related lessons with a greater frequency.

The third goal was that teachers would enrich, enliven, and update the content of their classes with a humanities focus and facilitate meeting the standards and assessments of the State of Ohio. Although this is not easily documented, the co-directors have observed a more tolerant attitude towards interdisciplinary instruction and a greater sense of cooperation amongst team members.

A comparison of the results of a survey taken prior to the outset of the grant activities and then taken at the end of the grant period support a slight improvement in responses to the utilization of the internet in lesson planning and to involvement in interdisciplinary teaching projects. (See Appendix D.)

c. Audiences

The immediate audience was twelve members of the staff in Beaver Local School District. They are Kristine Urmson, Barbara Podbielski, Connie Shive, Dave Andres, Robert Forzano, Dale Stuby, John Deichler, Leslie Gabbert, Jill Gunter, Teo Cebulla, Jeanne Barrett, and Barrie Archer. As the entire school community benefits from a shift in instructional delivery systems, the extended audience is the rest of the staff, the student body, and the community. The intended future audience extends to the educational community at large. (See Appendix E for publicity.)

d. Evaluation

The co-directors of the grant devised an instrument to assess the team's knowledge of Maya culture and history, to establish the frequency of team members' use of lesson plans utilizing the Internet, and to gauge team members' experience with interdisciplinary projects. (See Appendix F for Pretest/Posttest for 'Schools for the New Millennium Planning Grant'.) The same instrument was given to the team to complete at the beginning of the project and again at the end of the project (September, 1999 and May, 2000, respectively.)

The answers on the pretest were compared to the answers on the post-test to gather the data. Based on their knowledge of Maya history and culture, experience with Internet Lesson planning, and experience teaching interdisciplinary lessons, the co-directors jointly established what would constitute a positive change, a negative change, and no change in all answers. Each co-director, independent of the other, rated all the answers.

The co-directors compared their ratings of (+), (-) or (0). A positive change was scored as a (+), a negative change was scored as a (-), and no change was scored as (0). The few discrepancies in rating that occurred were discussed and consensus was reached.

The number of (+), (-), and (0) ratings for all team member's responses for each section of the survey was totaled. The percentages were determined by comparing the total number of (+) responses to the total number of possible responses for each section. The same procedure was followed for the (-) responses and for the (0) responses.

The results indicated that knowledge of the Maya culture and history increased, that no substantial change had occurred in the use of the Internet in lesson plans, and a slight positive change occurred concerning involvement in interdisciplinary projects. Any revolutionary change at the high school level will be met with resistance. The co-directors, who had much more experience with this type of project, felt some progress was made toward future implementation. (See Appendix D for complete Survey Results.)

e. Continuation of the Project

As far as the plans to continue this project, at this time several members of the grant team of teachers expressed the hopes that, indeed, Beaver Local High School, as well as other high schools, should implement this interdisciplinary project, or "mini-course, " soon. They urged the co-directors of this grant to pursue additional implementation grant funds in order to actually carry out the lesson plans of the Virtual Child.

In addition to funds needed for implementation, the board of education of the school district will need to approve the credit awarded to students for successfully completing the "mini-course"; one-fourth credit each year , earning a full credit at the end of four years.

A new relationship with Cleveland State University has been forged. Dr. Peter Dunham, archaeologist, has been a wonderful source of information and has been very cooperative before, during and after the grant period. Other institutions that have been very helpful are Cleveland Museum of Art, the Ohio Historical Society, and the Center for Latin American Studies of the University of Pittsburgh. The co-directors expect that these relationships will continue because of the continuation of the previously mentioned course, *Yucatan and Beyond.*

f. Long Term Impact

As an indicator of the positive attitude toward Beaver Local High School of the surrounding communities, the administration announced at the beginning of this school year that 100 open enrollment students had been turned down due to full capacity. That is not to say that solely this project had a direct impact on these students, but we believe that this project, as well as other curriculum initiatives at our school have all worked together to promote and improve its reputation for academic excellence.

When the administration applied for additional technological funds from School Net of Ohio, the committee included mention of this project. Although we did not receive the grant, the committee wants to apply again in the second round.

g. Grant Products

THE VIRTUAL CHILD:

After lengthy and prolonged discussion, the team reached consensus on the design and theme of the project. Further discussion lead to incorporating Problem Based Education into the project. Consequently, the 'Virtual Child' concept was adopted as part of the delivery system. The team decided that the delivery vehicle for the project overview and guiding questions would be via e-mail and in a 'Mission Impossible' format.

The decision was made that conflict and conflict resolution are issues that high school students confront daily and will confront throughout their lives. Therefore, the team decided to have students investigate past and present Maya culture in that context. Much time was spent selecting three key reasons of conflict which would be relevant and understandable for a ninth or tenth grade student whilst still addressing state proficiencies.

On March 2, 2000, during the weekly grant session, the recently released Ohio proficiency requirements were accessed via Internet and reviewed to evaluate the accuracy and relevance of the theme and design of the project. Members teaching in the core subjects confirmed that the project did fit well into the most current state requirements. (See http://www.state.oh.us/proficiency/gradoutcomes.htm and see http://cnets.iste.org/index.html for the National Technology Standards.)

The team desired to emphasize that the Maya culture and people are not extinct, but a living, vital culture, whose own destiny is interwoven with the destiny of the Americas. The team decided to have students investigate three periods of Maya history: Classic, Spanish Colonial, and Late Twentieth Century. Consequently, three Maya cities, each representative of one of the historical eras of Maya history, were chosen. To facilitate student research, the co-directors chose three cities that are closely related geographically and whose histories overlap. A city representing each time period in Chiapas, Mexico was selected. Palenque was chosen for the Classic period. San Cristobal de las Casas was chosen for the Spanish Colonial period. And Tuxtla Gutierrez was chosen for period of the Late Twentieth Century. Availability of Internet material also heavily influenced the choice of cities.

The 'Big Questions' are "Who are the Maya?" and "How has conflict affected the Maya?" The sources of conflict that were chosen for this project were health and nutritional causes, government (politics), and culture.

The 'Virtual Child' project was designed to address the freshman and sophomore students in the high school where the project originated. The school population is approximately (800) eight hundred students. The freshman and sophomore classes represent one half the student population or about (400) four hundred students. The faculty available for participation in this project is based on the percent of the student body involved. The faculty numbers approximately (50) fifty; therefore (25) twenty-five faculty should be made available for instructional purposes in this project. The twenty-five faculty members include the twelve members of the project team and thirteen additional staff.

The number of students involved in the project is approximately (400) four hundred. There are eleven instructional sessions in which each student must participate and there are three computer labs. Eleven and three yield (14) fourteen sessions that can be available at one time. Four hundred divided by (14) fourteen yields (28) twenty-eight students per group.

A group of twenty-eight students is large for this instructional format. Additionally, team members found it difficult to contain the expanding knowledge that this type of research generates. For those reasons, it was decided that students should work in teams composed of four. Each group of students therefore contains (7) seven teams. The individual student research time would be reduced significantly allowing students time to explore areas of interest which they may uncover in the process of addressing the questions posed by the Virtual Child Research Guide. (See Appendix A.) Team cooperation and collaboration should be facilitated as well.

As the grant team of teachers chose to look at three periods of Maya history, the Classic period, the Spanish Colonial period, and the period of the Late Twentieth Century, student teams will be assigned to one of these time periods of Maya history. Each group of (28) twenty-eight students will be composed of two teams for each of (2) two time periods and three teams of (1) one time period. There will be seven (7) teams in each group.

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FACULTY ROLES AND DUTIES IN THE 'VIRTUAL CHILD' PROJECT

The teachers involved with the project will meet at least a week beforehand for orientation. They will receive packets that include the schedule for the 'Virtual Child' Project, the schedules of each group of students, an explanation of their roles in the 'Virtual Child' Project, and the expectations for the 'Virtual Child' Project. (See Appendix I for the schedules.)

The 'Virtual Child' Project team consists of twelve members. The 'Virtual Child' Project team teachers involved in the direct presentation of sessions to students will be prepared to deliver their lesson 14 times during the week in order to have taught it to all 400 students.

Three 'Virtual Child' Project team members teach (90) ninety minute sessions. The three sessions that are ninety minutes are Foods (Urmson), Visual Art (Archer), and Language Arts (Gabbert). It was decided that Language Arts required a follow-up session after the introduction of the assignment. The introduction session in Language Arts is a 45 minute block. The second Language Arts session is a 90 minute block. Therefore an extra Language Arts staff member might be utilized to initiate the assignment with Gabbert instructing the second session.

One 'Virtual Child' project team member teaches two (45) forty-five minute sessions on different subjects: STD's and the Ball Game (Gunter). One 'Virtual Child' Project team member, the media specialist (Deichler), does not teach any sessions. The contribution of the media specialist is to ensure that technical matters and emergencies are immediately addressed ensuring that the successful continuation of the 'Virtual Child' project goals. Seven 'Virtual Child' project team members teach (45) minute sessions. One member of the 'Virtual Child' project team, D. Andres, normally teaches at the Middle School and will be requested at the High School to serve as an advisor.

The 'Virtual Child' project members will serve as a resource persons to all the teams. The 'Virtual Child' project members will evaluate the materials that the students generate.

Each group of students, seven teams, will have a general staff member who travels with them during the day. The group's Advisor will serve as a mentor to the group. The students, seven teams, in the group assigned to the Advisor will report to this Advisor with completed assignments. The Advisor for each group of students will keep the CD's of the seven teams in the group. The Advisor will ensure that the completed assignments of each team will be transferred to the CD belonging to the appropriate team and that assignments are delivered to the 'Virtual Child' project team members for evaluation.

All faculty members involved in the project with the exception of the Visual Art instructor has a preparation period the same block each day.

STUDENT PREPARATION FOR 'VIRTUAL CHILD' PROJECT

At least three weeks prior to the beginning of the interdisciplinary research project students will be surveyed to assess their knowledge base of the Maya Culture and history. Students will also be surveyed to discover their interests. Students will be given an interest survey/and a pre-test. (See Appendices G and H.) The results of the pre-test/survey would be used to determine both the composition of the teams and the historical period to which the team would be assigned. The Friday of the week before the actual project, each student will receive an e-mail with the problem, queries and leading questions for constructing the 'Virtual Child'. (See Appendix C for Leading Questions and Appendix A for the design of the 'Virtual Child'.) The 'Virtual Child' project team will review student surveys and group the students into teams of four by knowledge and interests.

Using the information gathered from the surveys, students will be assigned to a team that investigates one of three specific time periods in Maya history. The three time periods are Classic, Spanish Colonial, and Late Twentieth Century. Palenque is the city of the Virtual Child during the Classic period. San Cristobal de las Casas is the city of the Virtual Child during the Spanish Colonial period. Tuxtla Gutierrez is the city of the Virtual Child during the period of the Late Twentieth Century.

On the Friday prior to the beginning of the project students will be called by homeroom to the computer labs to retrieve their e-mail message containing the assignment. Every student has an e-mail account. The e-mail will contain the team problem-based scenario, the period of Maya history in which the scenario is set, and the names of the other members of the team.

The message will be worded in a 'Mission Impossible' format. Additionally, the e-mail message will contain questions about the city in which their Virtual Child lives. The questions will provide the background material the student will need to begin to understand what life in that area, culture, and time period entailed. The questions will require the student/team to research the location and surrounding environment of their Virtual Child's city and the cultural, political, and economic foundations of that city. The Virtual Child E-mail message will contain websites to guide the student to informative resources. (See Appendix A for Problem and Virtual Child Research Guide.)

In addition to receiving the Problem and Virtual Child Research Guide on Friday students will receive a floppy disc where they will save their e-mail messages and findings. Students will research questions and save to disc relevant findings. Students may do this at home as well as in the computer labs at school. Students will keep the floppy disc with them at all times.

Each team will receive a CD. The CD's will be kept by their group's Advisor. The information that the team decides appropriately addresses the questions of the 'Virtual Child' Project will be transferred to the CD. The material transferred to the CD's should be an amalgam of the research and opinion of the team.

DESCRIPTION OF 'VIRTUAL CHILD' PROJECT WEEK

Team members decided that this project would be one school week, every day, all day, for all freshmen and sophomores. (See Appendix I.)

The Beaver Local High School class schedule organization is the 4x4 block schedule format. Each day of week is divided into four (90) minute blocks. Third block is two hours in duration. Lunch is served in 4 shifts during third block. The four lunch shifts are (30) thirty minutes each. Under the normal class schedule, students attend the same class in the same block for a semester. The second semester is composed of four new classes that are attended during the same block each day. Students are able to take eight classes in a school year using this format.

The 'Virtual Child' Project has retained the 4x4 block schedule but with modifications. Three (90) minute blocks are retained for the Art Lesson, the Foods Lesson, and a Language Arts lesson. Other (90) ninety minute blocks are retained for Computer Research and for Advisory Periods. The remaining blocks are divided into 45 minutes to accommodate the delivery of all the sessions.

The first day, Monday, during the first block two morning sessions of 45 minutes each will be conducted. Half the students, (200) two hundred, will meet in the auditorium for an explanation of the premise and focus of the 'Virtual Child' Project. Each student will receive a packet that includes their schedules (See Appendix J.), team members names and e-mail addresses, advisor, time period and city, and assessment information. Questions and Answers will be entertained in any remaining time. Student teams may also begin to prepare their research strategies.

While half of the students (200) are in their orientation session, the other half will either be attending lessons or in the computer lab researching. At the conclusion of the first 45 minute session, the second half of the students will report to the auditorium for the same orientation while the students who have already received orientation will report to a class session or Computer Research session. The four teachers who have 90 minute instructional periods will conduct the orientation sessions. The other 'Virtual Child' project team members will also be free to assist at the orientation session.

Tuesday through Thursday class sessions will follow the master schedule with no unusual modifications. (See Appendices I and J .) The main activities during the week include:

(1.) Direct instruction and/or hands on sessions

(a.) Visual Art Lesson – Students interpret and integrate the information gained in researching their 'Virtual Child' while learning about the Maya Codices and their construction and the Maya writing system.

(b.) Math Lesson – Students learn about population fluctuations in the Maya peoples over several centuries..

(c.) Music Lesson – Students research the roots of Central American music.

(d.) STD's Lesson – Students learn about STD's. Students research and reflect on cultural differences in dating and marriage conventions.

(e.) Foods Lesson – Students study nutrition. Students cook Maya foods.

(f.) Culture Lesson – Students study and experience the impact of culture on one's thinking and perspective.

(g.) Disease Lesson – Students discover the devastating effects of epidemic diseases.

(h.) Communication and Conflict Lesson – Students discover that language can act as a barrier or as a shared experience.

(i.) Ball Game Lesson – Students experience playing a modified version of the Ball Game. Students learn some of the significance of the Ball Game.

(j.) Government Lesson – Students research several forms of government and determine which one was in use during their assigned time period.

(k.) Language Arts Lesson – Students create and produce a story, video production, website, or drama based on their research of the Maya in Chiapas, Mexico.

(2.) Internet Research in computer labs

(3.) Work sessions with advisors

(4.) Watching the video (*Mayan: A History of the Mayas*, LDA Video,1994)

At the appropriate time during the week the teams will receive e-mail messages asking guiding questions that must be answered. (See Appendix J.) The answers will be saved to disk and a hard copy will be given to the assigned advisor for assessment.

A live video conference with experts on the Maya of Chiapas will be conducted on Friday afternoon in the auditorium with all students in attendance. The co–directors contacted Anna Garza, Investigadora, Instituto de Estudios Indigenas de la Universidad Autonoma en Chiapas, and Shannon Speed, Doctoral Candidate in Anthropology (Native American Studies) at the University of California - Davis, who agreed to be participate in this project. Teams of students will submit questions in advance to their Advisors. The Advisors will choose the students who submitted the best questions to pose their queries to the expert.

The following Friday during school the parents and public will be invited to attend an open house and forum in which outside scholars will hear presentations and discussion concerning the conflicts the Maya have faced and are facing today. Student appreciation of situations giving rise to conflict and solutions to conflict will be focus of the evening. During the Open House, students will showcase their work from the project as well.

PLACEMENT OF 'VIRTUAL CHILD' PROJECT IN THE SCHOOL YEAR

The implementation of the Virtual Child project, as envisioned at Beaver Local High School, would be as a one week course placed in between the first semester and the second semester of the 4x4 block schedule currently in place. (See Appendix K.) One half of a week would be taken from each semester to create time to implement the 'Virtual Child' project. Students would receive 1/4 credit for participation in the project.

This one week project can also be implemented as an enrichment week while juniors and seniors are testing off-campus in February or finishing career passports or job and school portfolios

ADAPTABILITY OF 'VIRTUAL CHILD' PROJECT

The project can be adjusted to address one or more grade levels depending on the availability of computer resources, faculty, and curriculum needs. Additionally, the 'Virtual Child' Project format can be adapted to other cultures.

APPENDIX A

THE PROBLEM
AND
ATTACHMENT
'THE VIRTUAL CHILD GALACTIC FEDERATION RESEARCH GUIDE'

The Problem

The third planet from the Sun, known as Planet Earth, was one of the pioneer planets in the early history of the Galactic Federation. One of the several reasons Earth inhabitants were desperate to develop space travel was wide spread conflict resulting from socio-political and environmental deterioration caused by short sighted financially driven decisions. Over the intervening centuries, conditions have continued to worsen on Planet Earth. Few inhabitants remain today.

Galactic historians have petitioned the Federation to restore environmental balance on this watery little planet. Key points in their argument are:

1.) Planet Earth was one of the cradles of Galactic civilization and therefore should be restored for current and future generations to study, and
2.) The planet has the potential to be an outstanding educational vacation destination for family travel. Travel and eco-tourism fees to stay at Federation run sites around the planet would quickly return the financial investment necessary to restore balance.

To determine if it is possible to reestablish balance on Planet Earth, several areas have been targeted for feasibility studies. Information about geo-political interaction with the environment in the early history of the Planet needs to be gathered. Teams of young investigators from all over the Galaxy have been selected to study three periods of history in each targeted area. Each team is composed of an ecologist, an anthropologist, a historian, and a physician.

Team members will research stored data from the ancient Internet records housed in the Galactic Archives. After selecting appropriate characteristics from their research, the team will create a Virtual Child hologram. The Virtual Child hologram will be accompanied by holograms of a virtual family. Through time travel technology the holograms of the Virtual Child and family will be inserted into daily life in the designated area. Using Virtual Reality technology the team members will experience what life and living conditions were like during the period of time assigned to their team.

You are a member of a team assigned to the sub-tropical forest and wetlands of the Chiapas in southeastern Mexico. You will be assigned to one of three time periods:

1.) The Classic period of Maya history in the city of Palenque,
2.) The Spanish Colonial period of Maya history in the city of San Cristobal de Las Casas, or
3.) The Late Twentieth Century of Maya history in the city of Tuxtla Gutierrez

In addition to researching the characteristics of your Virtual Child, you must research the geo-political and sociological structure of the assigned city as well as the surrounding environment so that you will be able to understand what you are experiencing through your Virtual Child hologram. Your team reports will be sent to the Federation for evaluation.

Open the attachment to this E-mail to retrieve the Galactic Federation Research Guide for Project 'Planet Earth'.

The Virtual Child
Galactic Federation Research Guide
For Project 'Planet Earth'
Area: Chiapas Teams

Directions:

As part of the Galactic Federation team researching the viability of restoring Planet Earth you and your team have three goals. Goal One is to research adequate information to create your Virtual Child and family. Goal Two is to research adequate information to ascertain the environmental, political, and social conditions that influence the daily life of your Virtual Child. Goal Three is to report observations and evaluations of political, economic, environmental and social interactions.

Sections One, Two and Three should be researched as a team.

Divide the remaining seven sections equally amongst your team members and according to your vocational training. As there are seven sections and four team members, each team member should be researching one section alone and at least one other section with another team member. Team members should discuss who is responsible for researching each section of the Virtual Child. Share your findings with the other members of your team. Sharing information is vital to acquiring an adequate knowledge base to answer 'Leading Questions'.

In each section of your research guide (this document) you will find 'Leading Questions'. You may not be able to find specific answers to these questions in the ancient Internet Archives. It is for this reason that the Federation deemed it necessary to use a team and a hologram Virtual Child in this project. These questions require that you assimilate and evaluate what your virtual child is experiencing to fully investigate for the Federation. All team members must contribute to the 'Leading Question' reports.

Your research may generate further questions from the Federation. If that were to occur, you will receive those questions via e-mail. All Leading Questions must be answered and forwarded to the Federation Advisor.

Copy this e-mail and paste in a Microsoft Word document. Research the answers to the questions about your Virtual Child. As you discover and determine who, what and where your Virtual Child will be, record your findings in the Microsoft Word document you have created. (Make sure you create a backup document, too.) When your Federation Advisor asks you to hand in your findings, copy that section to another Microsoft Word document and make a hard copy of the section to hand in to your advisor for evaluation. (Your advisor may request a digital copy if computer facilities permit.) Your advisor will evaluate your findings and provide guidance if needed.

You have been assigned to:

(Insert correct time period and city)

The Classic period of Maya history in the city of Palenque,

The Spanish Colonial period of Maya history in the city of San Cristobal de Las Casas, or

The Late 20th Century of Maya history in the city of Tuxtla Gutierrez.

Your team members are:

(Insert names of team members.)

Remember – the fate of Planet Earth depends on accurate reporting.

Disclaimer: The links here have been scrutinized for their grade and age appropriateness. Content of links on the World Wide Web change continuously, however. It is advisable that teachers review all links.

Preliminary Activity:
Search for a timeline of the Maya civilization on the Internet. Copy to disc. Make sure you have saved the Internet address as well.

SECTION ONE

Gender:
What gender is your virtual child?
Age:
Your child is 13 or 14 years old. His or her birthday is today's date.
What are the symbols for his or her birthday in Maya?
Maya calendar: http://www.halfmoon.org/calendar.html
Physical Description of Your Virtual Child:
Eye color (in Spanish): **(Refer to http://www.spanishdict.com.)**
Hair color (in Spanish):
Skin color (in Spanish):
Facial structure:
Body alteration for adornments:
(Material relevant to physical description can be found in any of the sites listed below.)
http://www.caske2000.org
http://www.mundomaya.com.mx/img_gal/gfotos.html
http://www.nationalgeographic.com (search for article on Chiapas, Mexico)
http://www.mexicoweb.com/travel/zchipep.html
http://www.ddb.simplenet.com (Photos of Latin America - search for Maya)
http://www.bloorstreet.com/300block/aborintl.htm#3
http://www.isourcecom.com/maya/themaya/people.htm

Leading Questions:
What would be the average height and weight of your child upon becoming an adult? (in metrics)
http://www.sciencemadesimple.com/conversions.html

Activity:
Convert the metric figures of your child's adult height and weight to standard notation.
http://www.sciencemadesimple.com/conversions.html

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SECTION TWO

Family Information:
You must choose 5 people for your family. List their relationship in the family and their names. (One must be a grandparent.) Write the word for the family relationship in Spanish/English and in the appropriate Maya dialect.
Example:
English - Mother
Spanish – madre (Refer to http://www.spanishdict.com.)

and one of the following Mayan dialects used in your city: (Refer to http://maya.hum.sdu.dk)
Lacondon – na'
Chol – nya'
Tzeltal – nan
Tsotzil – me'
Tojolobal – nan(al).3.

Write the first and last names of the family members you chose in the appropriate blanks below. Write the relationship of the family member you chose in the appropriate blanks below in English, Spanish, and Mayan. Place the name of the Mayan dialect you chose in the parentheses. (All the dialects listed above are used the area of Mexico that you are studying.)

1. First Name _____ Last Name _____
   Relationship: English _____ Spanish _____ Mayan (_____) _____

2. First Name _____ Last Name _____
   Relationship: English _____ Spanish _____ Mayan (_____) _____

3. First Name _____ Last Name _____
   Relationship: English _____ Spanish _____ Mayan (_____) _____

4. First Name _____ Last Name _____
   Relationship: English _____ Spanish _____ Mayan (_____) _____

5. First Name _____ Last Name _____
   Relationship: English _____ Spanish _____ Mayan (_____) _____

Leading Question:
(a.) The successful reproduction of offspring is a result of the high standard of nutrition and health of your family. There are now twice as many people to feed. How can you increase your food supply?
http://www.wsu.edu:8080/~dcc/CIVAMRCA/MAYAS>HTM 13

SECTION THREE

Roles in the historical periods of your Virtual Child:

Instructions: Your father's profession determines the financial and social position of your family. From the appropriate time period in which your child lived, select one of the following professions for your father.

Classic: http://www.civilization.ca.membrs/civiliz/maya/mmc12eng.html
http://home.echo-on.net/~smithda/classstructure.html

Nobility -
Priest -
Shaman -
Merchant -
Laborer -
Farmer -
Military -
Slave -
Artisan -

Spanish Colonial: http://www.infoplease.com (Search 'Maya and Spanish colonial period'.)
http://www.historycooperative.org/journals/ahr/105.2/ah000417.html (pages 10-12 of a forty-two page online article by Thomas Benjamin.)
(Refer to Matthew Restall article on the Maya family in theYucatan on handout from Lesson on Culture by B. Podbielski.)

Shaman -
Laborer -
Community Leader -

Late 20th Century: http://www.civilization.ca/membrs/civiliz/maya/mmc12eng.html
http://www.civilization.ca/membrs/civiliz/maya/mmc08eng.html

Educator -
Artisan -
Farmer -
Migrant worker -
Merchant -

Leading Question:

Could a woman practice one of these professions?

http://www.criscenzo.com/jaguar/dynasty.html
http://www.eco.utexas.edu:80/Homepages/Faculty/Cleaver/booktrad.html
http://flag.blackened.net/revolt/mexico/comment/women_jul98.html
http://www.cidi.oas.org/InteramerStromRip.htm
http://www.chiapaslink.ukgateway.net/ch12.htm

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SECTION FOUR

Daily Activities of the average Maya family:

http://www.indians.org/welker/maya.htm
http://www.uwosh.edu/faculty_staff/brownp/Pantelho.htm
Book: *Mayeros: A Yucatec Maya Family* by George Ancona, Lothrop, Lee & Shepard Books, New York. 1997.

Read the cited website and fill in the following questions.

It is predawn:
- Who is preparing atole or chocolate?
- Who is preparing tortillas or tamales?
- Who is preparing to go to the milpa?
- Who is feeding the livestock?
- What is your Virtual Child doing?

It is dawn:
- Who is hauling water to the house?
- Who is going to school?
- Who is washing clothes?
- Who is going to the milpa?
- What is your Virtual Child doing?

It is midmorning:
- Who is sewing and embroidering to earn money?
- Who is weaving hammocks?
- Who is grinding corn for dough for tortillas?
- Who is working at the milpa?
- What is your Virtual Child doing?

It is noon:
- Who is making dough for tortillas for almuerzo?
- What is your Virtual Child doing?

It is mid afternoon:
- Who is cooking almuerzo?
- Who is at home eating?
- Who is taking a siesta?
- Who is entertaining the family with folk tales?
- What is your Virtual Child doing?

It is evening:
- Who is working on community projects (bullring, church)?
- Who is gathering firewood using a tumpline?
- Who is preparing tortillas and a light dinner?
- What is your Virtual Child doing?

It is late evening:
- Who is chatting and strolling at the plaza?
- Who is sewing or weaving?
- Who is sleeping?
- What is your Virtual Child doing?

SECTION FIVE

Education:

Describe how your Virtual Child learns to read and write the language that he/she speaks?

Late Twentieth Century:

http://pages.prodigy.com/Gbonline/casaescr.html

http://garnet.berkeley.edu:7001/Studentresources/lopez/image1.html

Classic and Spanish Colonial:

http://www.indians.org/welker/maya.htm

http://www.civilization.ca/membrs/civiliz/maya/mmc04eng.html

Leading Questions:

(a.) What language/languages does your Virtual Child speak?

http://www.sedesol.gob.mx/perfiles/estatal/chiapas/00_summary.html

http://www.sil.org/ethnologue/families/mayan.html

(b.) What other languages might your Virtual Child encounter?

(c.) What language does your Virtual Child need to know to succeed in his culture?

(d.) How is your language affected by encounters with another language?

http://www.infoplease.com/ce6/society/A0859548.html

http://www.hist.umn.edu/~rmccaa/chsind/chsind2.htm

http://www.spanweb.org/mapas.html

http://www.sil.org/lla/mexi_lg.html

http://www.civilization.ca/membrs/civiliz/maya/mmc04eng.html

Activities:

(a.) Create a calendar of 4 major holidays your child would celebrate.

Each team member will research one of the holidays and describe the role of the virtual child during the holiday.

modern – http://www.folklorico.com/fiestas/chiapas.html

classic - http://www.civilization.ca/membrs/civiliz/maya/mmc03eng.html

colonial - search for Roman Catholic holidays – church calendar

(b.) Describe religious conflicts that might be present in celebrating a holiday.

SECTION SIX

City:

Your child was born in (insert the correct period and city for the team):

The Classic period of Maya history in the city of Palenque,

The Spanish Colonial period of Maya history in the city of San Cristobal de Las Casas

The Late 20th Century of Maya history in the city of Tuxtla Gutierrez

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Describe the environment of the city during the period in which your child was born. Include:
Population -
Commerce -
Transportation -
Recreational facilities -
Religious structures -
Private housing -
Water sources –

(Unless otherwise indicated, material relevant to the description of the cities can be found in any of the sites below.)

http://oddens.geog.uu.nl/index.html (maps, etc.)
http://www.calle.com/world/mexico/index.html
http://www.mesoweb.com/palenque/
http://www.nationalgeographic.com (search for 'Chiapas')
http://mexdesco.com/colonial/1430.htm (Search San Cristobal – history)
http://www.case.com/~randyj/rjsncris.htm - San Cristobal
http://www.chiapasonly.com.mx/Tuxtla/default.htm
http://indians.org/welker/maya.htm
http://www.mexicoweb.com/travel/zchiapas.html
http://www.mexicoweb.com/travel/zchiacol.html
http://www.emayzine.com/lectures/HISTOR~8.htm (colonial population)
http://www.nationalgeographic.com - (Search 'Chiapas' article.)
http://www.cultures.com/mesa_resources/encyclopedia/meso_encyclopedia_.home.html
http://www.virtualpalenque.com
http://www.gorp.com/gorp/location/latamer/mexico/arc_maya.htm -(mentions water source for Palenque)
http://www.tourbymexico.com/chiapas/tuxtla/tuxtla.htm
http://oddens.geog.uu.nl/index.html
http://search.eb.com/bol/topic?eu=52853&sctn=1#s_top (population – classic period)
Search for articles on ancient Palenque - any search engine
Microsoft Encarta Virtual Globe - CD Rom loaded on computers in media center - search San Cristobal de Las Casas, Mexico
Refer to handout of article by Matthew Restall, page four.

SECTION SEVEN

Location:

Describe the location of the area in which your child's city is found.
What is the Longitude?
What is the Latitude?
What is the topography of the Yucatan?
What is the topography of your city?
http://oddens.geog.uu.nl/index.html (Search for Mexico and your city.)
Microsoft Encarta Virtual Globe CD Rom.)

(The Oddens site referred to in previous questions should contain all the needed information.)

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SECTION EIGHT

Environment:
Describe the physical environment of the area in which your child's city is found.
What is the average daily summer temperature?
What is the average daily winter temperature?
What is the average length of a summer day?
What is the average length of a winter day?
What is the average rainfall?
How many seasons are there? What months compose which seasons?
How many growing seasons are there?

(The material relevant to the description of the weather for cities may be found in any of the sites below.)
http://www.cnn.com (Search weather for your city.)
http://oddens.geog.uu.nl/index.html (Search Mexico, search your city.)
http://www.yahoo.com (Search weather, Records & Averages for your city, Mexico.)
(*Microsoft Encarta Virtual Globe* CD Rom)

Leading Questions:
(a) What types of wardrobes would your child need?
http://nationalgeographic.com (Search Chiapas.)
http://www.geocities.com/RainForest/3134 (Search Lacondon Maya home page, Palenque.)
http://www.ddb.simplenet.com (Search Chiapas.)
http://www.sci.mus.mn.us/sin/ma/teacher.html
http://www.caske2000.org (Search photo archives.)
http://www.criscenzo.com/jaguar/chiapas.html (Search "The Maya Today" – weaving, clothing, Paula Geise.)

(b) An international corporation has deforested 20,000 acres to graze beef cattle for exporting to the U.S. What affect will this have on the local economy and your child?
http://www.library.utoronto.ca/pcs/eps/chiapas/chiapas1.htm

(c) What is the potential long- term effect of the loss of the rain forest on global climate?
http://www.rainforest-alliance.org/resources/tflives.html

SECTION NINE

Natural Resources:
Describe the natural resources of the area in which your child's city is found.
What minerals were available?
What flora was available?
What fauna was available?
What fresh water was available?
What salt water was available?
(Information for above questions can be found in the sources listed below.)
http://www.inegi.gob.mx/territorio/ingles/vegfauna/principa.html
http://www.inegi.gob.mx
http://oddens.geog.uu.nl/index.html (Search Mexico, Chiapas.)
http://www.library.utoronto.ca/pcs/eps/chiapas/chiapas1.htm
Microsoft Encarta Virtual Globe CD Rom

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Leading Question:

How has water availability affected your child's life?
http://www.mesoweb.com/palenque/current_dig.html

SECTION TEN

Foods/Nutrition:

(a.) Create a typical Maya menu for 1 day.

http://www.indians.org/welker/maya.htm
http://www.caske2000.org
Book: *Mayeros: A Yucatec Maya Family* by George Ancona,
Lothrop, Lee & Shepard Books, New York. 1997.

(b.) List the materials and ingredients needed to produce the items on the menu.

http://mayacuisine.com/maya/index_maya.html
Book: *Mayan Cooking: Recipes from the Sun Kingdoms of Mexico*. Cherry Hamman.
1998. New York: Hippocrene Books.

Leading Questions:

(a.) Why is chili an important ingredient in the foods of tropic zones?
http://www.halfmoon.org/culture.html (Go to "A Word About Chiles".)

(b.) How were foods preserved and stored?

(c.) It hasn't rained for a growing season and the corn crop has failed. What do you do to eat until the next planting season and harvest?

(d.) Your city (or hacienda) has expanded and cut down the surrounding forests. Where do you procure medicinal herbs, game, fruits, etc.?

(e.) Respond to the following idea: You can't have a revolution when everybody's tummy is full.

The following sites apply to the section above:

http://guallart.dac.uga.edu/report98-99/report98-99.html
http://www.ag.iastate.edu/departments/agronomy/maizearticle.html
http://www.crisdenzo.com/jaguar/farming.html
http://www.civilization.ca/membrs/civiliz/maya/mmp04eng.html

A Technology-based Interdisciplinary Curriculum funded by the
National Endowment for the Humanities
2000

APPENDIX B

Conflict E-mail

Classic

The year is 880 A. D. Your virtual Maya child has a distended abdomen, is listless, has diarrhea and appears emaciated. His/her teeth are loose and some have fallen out. What is the physical problem your child suffers from? What is the cause of this problem? What group/s are involved in causing the problem? What can be done to remedy the situation that caused this illness? Who will resolve the problem?

Spanish Colonial

The year is 1530 A. D. Your virtual Maya child is feverish and chilled, is vomiting, has a headache, and has red blistered sores over his/her face and arms. What is the physical problem your child suffers from? What is the cause of this problem? What group/s are involved in causing this problem? What can be done? Who will remedy this problem?

Late Twentieth Century

The year is 1999 A. D. Your virtual Maya child has a cough, is very thin and does not have overall good health. He/she has trouble thinking and speaking. He/she appears slower mentally than older Maya children. He/she appears to be wasting away, has trouble sleeping and appears anxious. What is the physical problem your child suffers from? What group/s are involved in causing this problem? What can be done? Who will remedy the problem?

The answers to the ailments above can be found in the instructional sessions given this week by the core team of teachers. The situations that produced the ailments of the children can be found through research of the web sites given by both the teachers in their lessons and the web sites cited in the Virtual Child Research Guide.

In addition, the following web sites should be helpful with conflict resolution:

http://www.gdrc.org/u-gov/conflict-resol.html – Nine Steps of Conflict Resolution

http://www.geocities.com/Athens/8945/conf.html – observations of conflicts and conflict resolution processes

http://www.colorado.edu/conflict/transform/index.html - conflict transformation

http://wwwusip.org – search for Peace Agreements Digital Collection – Chiapas (bilingual site- Spanish and English) – United States Institute of Peace

APPENDIX C

BIG QUESTIONS AND LEADING QUESTIONS

Big Questions

1. 3Who are the Maya?
2. How has conflict affected the Maya?

Leading Questions received by daily e-mail

1. What purpose/role do music, art and literature have in a culture?
1. What purpose/role do music, art and literature play during conflict?
2. What purpose/role do culture and language have in a community?
3. What purpose/role do culture and language have during conflict?
4. What made your Virtual Child's government effective?
5. How did your Virtual Child's government adapt to conflict?
6. How do nutrition and health affect conflict?
7. How and why did your Virtual Child's government respond to health issues (disease, nutrition, and pollution)?
8. How many acres does it take to feed a family of five using traditional Maya agricultural techniques? In addition to health issues, what other conditions could cause population fluctuations?
9. How do sports contribute to cultural unity? Why do governments support sports?
10. What does a balance daily diet consist of? List the foods that your Virtual Child probably consumes daily. List 10 ways in which poor health and nutrition affect you.

Leading Questions in Virtual Child Research Guide

1. What would be the average height and weight of your child upon becoming an adult? (in metrics)
2. The successful reproduction of offspring is a result of the high standard of nutrition and health of your family. There are now twice as many people to feed. How can you increase your food supply?
3. Could a woman practice one of these professions?
4. What language/languages does your Virtual Child speak?
5. What other languages might your Virtual Child encounter?
6. What language does your Virtual Child need to know to succeed in his culture?
7. How is your language affected by encounters with another language?
8. What types of wardrobes would your child need?
9. An international corporation has deforested 20,000 acres to graze beef cattle for exporting to the U.S. What affect will this have on the local economy and your child?
10. What is the potential long- term effect of the loss of the rain forest on global climate?
11. How has water availability affected your child's life?
12. Why is chili an important ingredient in the foods of tropic zones?
13. How were foods preserved and stored?
14. It hasn't rained for a growing season and the corn crop has failed. What do you do to eat until the next planting season and harvest?
15. Your city (or hacienda) has expanded and cut down the surrounding forests. Where do you procure medicinal herbs, game, fruits, etc.?
16. Respond to the following idea: You can't have a revolution when everybody's tummy is full.

Leading Questions in final Conflict E-mail

Classic

The year is 880 A. D. Your virtual Maya child has a distended abdomen, is listless, has diarrhea and appears emaciated. His/her teeth are loose and some have fallen out. What is the physical problem your child suffers from? What is the cause of this problem? What group/s are involved in causing the problem? What can be done to remedy the situation that caused this illness? Who will resolve the problem?

Spanish Colonial

The year is 1530 A. D. Your virtual Maya child is feverish and chilled, is vomiting, has a headache, and has red blistered sores over his/her face and arms. What is the physical problem your child suffers from? What is the cause of this problem? What group/s are involved in causing this problem? What can be done? Who will remedy this problem?

Late Twentieth Century

The year is 1999 A. D. Your virtual Maya child has a cough, is very thin and does not have overall good health. He/she has trouble thinking and speaking. He/she appears slower mentally than older Maya children. He/she appears to be wasting away, has trouble sleeping and appears anxious. What is the physical problem your child suffers from? What group/s are involved in causing this problem? What can be done? Who will remedy the problem?

APPENDIX D

SURVEY RESULTS

Survey Results

Methodology of research

The co-directors of the grant devised an instrument to assess the team's knowledge of Maya culture and history, to establish the frequency of team members' use of lesson plans utilizing the Internet, and to gauge team members' experience with interdisciplinary projects. The same instrument was given to the team to complete at the beginning of the project and again at the end of the project (September, 1999 and May, 2000, respectively.)

Data Analysis

The answers on the pretest were compared to the answers on the post-test to gather the data. Based on their knowledge of Maya history and culture, experience with Internet Lesson planning, and experience teaching interdisciplinary lessons, the co-directors jointly established what would constitute a positive change, a negative change, and no change in all answers. Each co-director, independent of the other, rated all the answers.

The co-directors compared their ratings of (+), (-) or (0). A positive change was scored as a (+), a negative change was scored as a (-), and no change was scored as (0). The few discrepancies in rating that occurred were discussed and consensus was reached.

The number of (+), (-), and (0) ratings for all team member's responses for each section of the survey was totaled. The percentages were determined by comparing the total number of (+) responses to the total number of possible responses for each section. The same procedure was followed for the (-) responses and for the (0) responses.

Three members of the team did not participate in the survey. They were the co-directors and the Media Specialist. The total number of possible responses per section was based on 9 team member's responses. Section I, Maya History and Culture, had 14 questions. Nine team members x 14 questions yielded 126 responses. Section II, the Utilization of the Internet in Lesson Planning, had 7 questions yielding 63 responses. Section III, Interdisciplinary Experience, had 9 questions yielding 81 responses. Question #9 in Section Three was a question that could not be rated.

The following percentages were derived from these figures and are shown on Chart A.

SECTION ONE = MAYA CULTURE AND HISTORY

Positive Response	+	95/126	=	75.3 %
No Change	0	28/126	=	22.4 %
Negative Response	-	3/126	=	02.3 %

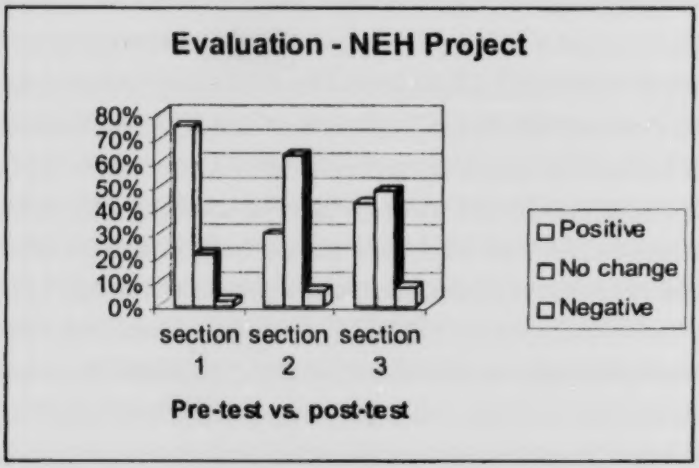
SECTION TWO = USE OF THE INTERNET IN LESSON PLANS

Positive Response	+	19/63	=	30.1 %
No Change	0	40/63	=	63.4 %
Negative Response	-	4/63	=	06.3 %

SECTION THREE = INVOLVEMENT IN INTERDISCIPLINARY PROJECTS

Positive Response	+	35/81	=	43.2 %
No Change	0	39/81	=	48.1 %
Negative Response	-	7/81	=	8.6 %

25



Interpretation of results

Section 1:
Knowledge of the Maya culture and history increased.

Section 2:
Use of the Internet in lesson plans revealed that no substantial change had occurred. Many of the team members answered that they already used the Internet in their lesson plans for the purpose of student research.

Section 3:
The results are mixed concerning involvement in interdisciplinary projects. The co-directors anticipated that their interdisciplinary course previously titled *The Traveling Classroom*, and later called *Yucatan and Beyond*, would serve as a laboratory in which to experiment with the newly developed lesson plans of the team. The team lesson plans were not completed until the *Yucatan and Beyond* Course had already concluded. Consequently, no forum was readily available. The only slight positive change that occurred may reflect this.

Some positive change occurred as evidenced by several participants responding that they had more experience with interdisciplinary lesson plans because of participation in the planning grant. Several participated in the *Yucatan and Beyond* Course but with different lesson plans. Some teachers felt this type of project enlivened their lessons and infused meaning into the state proficiency outcomes. Those instructors acknowledged that this type of project promoted higher level thinking skills, like critical thinking and problem solving, which will be required on the emerging 10th grade Exit Exams. The current 9th grade proficiency test is a more objective instrument.

One cannot discount the negative change toward interdisciplinary projects at the high school level. Reaching consensus in the selection of a theme and in how to implement an interdisciplinary course into a high school format proved to be laboriously slow. Interdisciplinary teaching is not common at the secondary level. It is an uncomfortable concept for many when attempted on a large and comprehensive scale. The enormous preparation time involved in this type of project is daunting.

Additionally, most teachers feel intense pressure to prepare their students for the Ohio Proficiency Tests. Instructors renewing their instructional delivery systems to improve student test scores are finding themselves already short of time and resources.

Conclusions:

Any revolutionary change at the high school level will be met with resistance. The co-directors, who had much more experience with this type of project, felt some progress toward future implementation had been accomplished.

APPENDIX E

PUBLICITY

The Review

UESDAY, AUGUST 10, 1999 — *Serving the community for 119 years* — 35 CENTS

Beaver Local approves program with EL YMCA

By TAMMY KING
Review Staff Writer

LISBON — The East Liverpool YMCA's proposed after-school program got the go ahead from Beaver Local School members at the regular meeting of the board Tuesday night.

"This program will take place at Calcutta Elementary, " said Paul Jackson, president of the school board. "Students can stay after school until 6:30 p.m."

"This is really a benefit for working parents," said Frank Blankenship, superintendent. "It will offer a variety of activities to enhance the students' creativity, and the East Liverpool YMCA will man and staff the program."

Blankenship said it is a win-win partnership for the school district and the community. In addition to the student benefits, Kent State University teaching students will gain experience in child-care and teaching.

"The program will be licensed through the state," said Alice Fraser, school board member.

If the program is a success at Calcutta Elementary, the YMCA and Beaver Local school district will expand to other Beaver Local elementary schools.

In other matters, the board approved the creation of the National Endowment for the Humanities Grant Fund and the appropriations for the fund in the amount of $31,495 for the interdisciplinary Mayan Project.

The Mayan Project, headed by Beaver Local High School Spanish teacher Jeanne Barrett and Beaver Local art teacher Barrie Archer, was one of 14 National Endowment for the Humanities grants given for the next school year, according to Blankenship.

Barrett and Archer have collaborated on the interdisciplinary projects with their Spanish and art classes intermittently for four years.

Both have an interest in the ancient and modern Mayan civilization of Central America.

The school board also approved keeping the minimum grade point average for participation in interscholastic athletics at 1.5 and the contract for educational services with the Columbiana County Board of MRDD and the Portage County Board of MRDD.

In addition, the board awarded the fleet insurance bid to National Insurance through John Keil Agency at a cost of $8,691, authorized permission to advertise for septic tank cleaning bids and approved the bus routes for the 1999/2000 school year and approved the 1999/2000 school year Middle School Teachers Guide and Middle School Student/Parent Handbook.

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MAYA

Continued from Page 1

planned trip to the Yucatan, Mexico. Barrett said the students must be prepared financially for the field trip and some project supplies.

The students will also go on field trips to Cleveland and Pittsburgh. Outside experts will also talk to the students about the rain forests and astronomy.

Barrett said basic Spanish will be incorporated into the course and students will use the latest technology to create an electronic portfolio and/or a class web site.

In the class, students will work with students from other classes such as home economics, music, physical education, social studies, biology and math when covering topics related to that field of investigation.

Scholars of Mayan studies and related topics from nearby learning institutions have conducted seminars and will provide guidance. Barrett said the seminars are a part of the professional development for the teachers that will be involved with the course.

Dr. Peter Dunham, Cleveland State University, Department of Anthropology and Dr. Olivier Montmollin, University of Pittsburgh, Departments of Anthropology and Latin American Studies are among the many scholars that will be lecturing for the teachers involved.

There will also be scholars from Youngstown State University and Kent State University - Salem Campus.

Dunham introduced the staff to ancient and contemporary Mayan culture. Teachers will participate in a simulated archeological 'dig' in a follow-up session. Dr. Montmollin discussed the evolution of the political systems of the Maya of Chiapas and the significance of the Mayan Ball Game.

The purpose of the planning grant, Links Across the Curriculum, Culture and Time: Using the Maya Culture as a Focus to Develop Interdisciplinary Technology-Based Curriculum, is to involve teachers from across the curriculum in developing an integrated curricula and to use technology to enhance teaching and learning.

The goal of Beaver Local School District is to have a student's work travel with them from kindergarten to 12th grade in an electronic portfolio.

Specific skills and learning the implementation of the Links grant would address and improve mapping skills, geographic knowledge, evaluating sources on the Internet, analyzing data, analyzing charts and graphs, cause and effect, critical thinking and problem solving.

The learning issues it will focus on are using technologies to enhance and increase student learning in the humanities at the high school level, using Internet research to enable students to become active learners individualizing their own agenda and addressing their own learning styles and utilizing both cooperative learning and contextual learning.

The issues of teaching that will be addressed are comparing and contrasting cultures specifically in this hemisphere, tolerance, prejudice, stereotyping and human rights. Also to be addressed are types of government and the impact of government policy on private citizens, especially in economics and ecology.

Researching Internet sources will be an integral component and the development of electronic portfolios will be initiated.

The results of the project will serve as a model for further interdisciplinary curricula developed at the home and school. It will be disseminated to other schools by CD and the school web site.

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Donna J. Tolson — Editor
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The MORNING JOURNAL is published daily

Beaver Local students will get a taste of Mayan culture

By AMBER L. BOYCE
Journal Staff Writer

LISBON — Beaver Local High School will be offering "The Yucatan & Beyond" during the second semester.

Teacher Jeanne Barrett said the project will expand an interdisciplinary model called "Maya Culture, Past and Present," which had been developed for high school level Spanish and art students.

The class is preparatory for a

See MAYA Page 3

Largest Daily Newspaper
MORNING JOURNAL
MONDAY, OCTOBER 18, 1999

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APPENDIX F

PRETEST/POSTTEST FOR
SCHOOLS FOR THE NEW MILLENNIUM'
PLANNING GRANT

Participant_____

PRE-TEST FOR
"SCHOOLS FOR THE NEW MILLENNIUM" PLANNING GRANT
National Endowment for the Humanities
BEAVER LOCAL HI GH SCHOOL
Sept. 18, 1999

I. Maya Culture

1. Where did the Maya live? _____

2. When did their ancient civilization exist? _____

3. What language(s) do the Maya speak?
_____

4. What evidences of their ancient civilization do we have today?
_____

5. What kind of government did they have in the ancient civilization?
_____

6. What was their world view? _____
_____

7. What religion did they practice? _____

8. Do they still practice this today?
_____Yes
_____ No

9. What is their diet like? _____
_____

10. What is their family structure like? _____
_____

11. What is the role of the male?
_____

12. What is the role of the female?

_____
_____

13. For what knowledge and skills were the ancient Maya known?

_____
_____
_____

14. Why did the ancient civilization disappear? _____
_____

II. Using the Internet in Lesson Plans

1. Have you ever used the Internet as an integral part of your lesson plans?
   ____ Yes
   ____ No

2. Last year, how often did you use the Internet in your lesson plans?
   ____ daily
   ____ once a week
   ____ once a month
   ____ once each semester
   ____ never

3. How did you use the Internet in your lesson plans? (Indicate any that apply.)
   ____ just as a source of information
   ____ as a way for students to communicate with other students (email)
   ____ in special collaborative, interactive projects (i.e. Science- students observe, enter data and analyze data
   to come to some conclusion, working with students from another school)
   ____ other: _____
   _____
   _____

4. What was the general reaction of the students during the project?
   ____ Favorable
   ____ Unfavorable

5. As a teacher, what was your reaction to the use of the Internet?
   ____ more valuable and effective than the traditional instructional resources
   ____ just as valuable and effective as the traditional instructional resources
   ____ not as valuable and effective as the traditional instructional resources

6. What kinds of problems did you encounter when you used the Internet?
   ___ blocked sites (due to the filtering software) that were worthwhile
   ___ slow connections
   ___ availability of the computer labs during your class times
   ___ not enough computers in classroom
   ___ problems finding enough worthwhile sites for your project
   ___ other: _____
   _____

7. What were the advantages in using the Internet in your lesson plans?
   _____
   _____
   _____
   _____

III. Interdisciplinary Projects

1. Have you ever participated in an interdisciplinary project at the high school level?
   ___ Yes
   ___ No

2. If your answer was yes, what subjects were involved?_____
   _____

3. What was the theme of the project? _____

4. Did you think that the project was beneficial for the students rather than just studying a discreet topic in your
   own classes?
   ____Yes
   ____No

5. Why or why not? _____
_____
_____
_____
_____

6. Are you willing to participate in one in the future?
____Yes
____No

7. What themes can you identify that have a humanities focus? (Humanities involves language arts, history, art history and foreign languages.)
_____
_____
_____
_____

8. What subjects or classes would be involved with the above themes?
_____
_____

9. How long do you think an interdisciplinary project should last?
____ the entire semester
____ several weeks
____ one week
____ a few days

10. While working with colleagues on an interdisciplinary project, what kinds of problems would you anticipate?
____ differing viewpoints of lesson presentations
____ differing systems of grading
____ differing viewpoints or philosophies of disciplining students
____ finding time together to develop lesson plans
____ doing the project and also preparing students to perform well on the Ohio proficiency tests
____ scheduling blocks of students from different classes who are to collaborate on certain parts of the project
____ other: _____
_____

Thank you.

APPENDIX G

STUDENT INTEREST SURVEY

APPENDIX H

STUDENT PRETEST

The Maya and Conflict

Pretest for Interdisciplinary Project

Name _____ Date _____

Write the letter that corresponds to the correct answer on the line provided:

____ 1. The Maya people live in
- **a.** South America
- **b.** the United States
- **c.** Central America and Mexico
- **d.** Puerto Rico

____ 2. Their ancient civilization reached its highest point around
- **a.** 1900 AD
- **b.** 10,000 BC
- **c.** 1600 AD
- **d.** 600 AD

____ 3. The Maya today generally speak
- **a.** English
- **b.** Spanish
- **c.** some Mayan dialect
- **d.** both b. and c.

____ 4. The remnants or evidence today of their ancient civilization is(are)
- **a.** their hieroglyphics
- **b.** their art (ceramics, murals, architecture, etc.)
- **c.** their customs and religion
- **d.** their system of keeping time (their calendars)
- **e.** all of the above

____ 5. Their diet mainly consists of
- **a.** meat
- **b.** corn, beans and other vegetables
- **c.** rice and fish
- **d.** fruits

____6. A *milpa* is
- a. a Maya hut
- b. a shawl worn by Maya women
- c. a Maya corn field
- d. a ceremony performed upon the birth of a newborn Maya child

____ 7. Their population decreased greatly around 900 AD because of
- a. drought, famine and wars
- b. small pox brought by the Spanish
- c. birth control
- d. migration to the United States

____ 8. Most of the Maya children don't go to school beyond
- a. second grade
- b. eighth grade
- c. high school
- d. college

____ 9. When the Spanish arrived to the New World and found the Maya, the Spanish soldiers
- a. moved them to other territories
- b. learned their customs and language
- c. peacefully coexisted with them.
- d. fought and enslaved them

____10. Today the Maya of Chiapas, Mexico, have a government of
- a. socialism, or their version of it in their communities
- b. communism
- c. democratic republic
- d. royal monarchy
- e. none of the above

___11. The Maya of Chiapas have been fighting the Mexican government for
- a. rights to their land
- b. rights to keep their communities more autonomous
- c. more equitable representation in both state and federal governments
- d. the right to use their own indigenous language, both written and spoken
- e. all of the above

___ 12. Information concerning the modern conflict raging in Chiapas is mainly found
- a. in daily newspapers
- b. on the evening news on television
- c. on radio news
- d. on the Internet

APPENDIX I

CHARTS ILLUSTRATING SCHEDULES FOR WEEK

	1st	2nd	3rd	4th
1	Intro Session / Music	Culture / Advisor	Communication & Conflict / Language Arts	Computer Research
2	Intro Session / Government	Foods	Language Arts / Communication & Conflict	Computer Research
3	Intro Session / Disease	Computer Research	Advisor / Advisor	Foods
4	Intro Session / STD's	Music / Culture	Computer Research	Advisor
5	Intro Session / Computer Research	STD's / Music	Culture / Advisor	Communication & Conflict / Language Arts
6	Intro Session / Computer Research	Math / Advisor	Music / Disease	Culture / Communication & Conflict
7	Intro Session / Computer Research	Communication & Conflict / Math	Disease / Music	Advisor / Culture
8	Music / Intro Session	Language Arts / Communication & Conflict	Math / Culture	Computer Research
9	Government / Intro Session	Computer Research	Foods	Disease / STD's
10	Disease / Intro Session	Government / Language Arts	Computer Research	Math / Advisor
11	STD's / Intro Session	Advisor / Government	Computer Research	Advisor / Disease
12	Computer Research / Intro Session	Video	Government / Math	STD's / Advisor
13	Computer Research / Intro Session	Computer Research	Video	Language Arts / Math
14	Computer Research / Intro Session	Advisor / STD's	Art	Video

Monday

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	1st	2nd	3rd	4th
1	Government / Disease	Art	Computer Research	STD's / Math
2	Advisor	Music / STD's	Disease / Math	Computer Research
3	Advisor / STD's	Government / Music	Art	Computer Research
4	Foods	Communication & Conflict / Government	Computer Research / Language Arts	Math / Disease
5	Computer Research	Foods	Government / Disease	Art
6	STD's / Advisor	Computer Research	Advisor / Government	Foods
7	Computer Research	Language Arts / Advisor	Video	Advisor
8	Video	Advisor / Computer Research	Language Arts	Disease / STD's
9	Music / Advisor	Computer Research / Culture	Math / Language Arts	Video
10	Advisor / Music	Culture / Communication & Conflict	Computer Research	Advisor
11	Computer Research	Video	Music / Culture	Language Arts / Advisor
12	Advisor	Computer Research	Culture / Music	Language Arts / Advisor
13	Art	STD's / Advisor	Advisor / Computer Research	Culture / Advisor
14	Disease / Government	Language Arts / Math	Advisor	Computer Research

Tuesday

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	1st	2nd	3rd	4th
1	Computer Research / Advisor	Advisor	Video	Advisor / Ball Game
2	Advisor / Computer Research	Culture / Advisor	Language Arts	Video
3	Computer Research / Advisor	Communication & Conflict / Language Arts	Culture / Math	Advisor
4	Advisor	Computer Research	Advisor	Ball Game / Advisor
5	Video	Computer Research	Math / Advisor	Language Arts
6	Art	Computer Research	Language Arts / Advisor	Advisor
7	Foods	Government / STD's	Art	Computer Research
8	Government / Advisor	Foods	Computer Research	Art
9	Computer Research	Art	Advisor	Advisor
10	Ball Game / Computer Research	Video	Advisor / Language Arts	Foods
11	Language Arts	Math / Communication & Conflict	Advisor	Computer Research
12	Disease / Ball Game	Language Arts	Computer Research	Communication & Conflict / Advisor
13	Music / Disease	Advisor / Government	Computer Research	Advisor / Communication & Conflict
14	Advisor / Music	Advisor / Culture	Communication & Conflict / Advisor	Computer Research

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Wednesday

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	1st	2nd	3rd	4th
1	Computer Research	Advisor	Language Arts	Advisor
2	Advisor / Ball Game	Computer Research	Advisor	Art
3	Video	Advisor	Computer Research	Language Arts
4	Language Arts	Video	Advisor	Advisor / Computer Research
5	Ball Game / Advisor	Advisor	Advisor	Computer Research / Advisor
6	Computer Research	Advisor / Ball Game	Video	Advisor
7	Computer Research	Ball Game / Advisor	Advisor	Advisor
8	Advisor	Computer Research	Advisor	Ball Game / Advisor
9	Language Arts	Computer Research	Advisor / Communication & Conflict	Advisor / Ball Game
10	Art	Language Arts	Advisor	Computer Research
11	Foods	Art	Advisor / Computer Research	Advisor
12	Advisor	Foods	Art	Computer Research
13	Advisor	Language Arts	Computer Research	Foods
14	Advisor	Advisor	Computer Research / Advisor	Language Arts

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Thursday

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	1st	2nd	3rd	4th
1	Computer Research / Advisor	Foods	Advisor	Live Video Conference
2	Computer Research	Advisor	Advisor	Live Video Conference
3	Advisor	Computer Research / Advisor	Ball Game / Advisor	Live Video Conference
4	Computer Research	Art	Advisor	Live Video Conference
5	Advisor	Computer Research	Advisor	Live Video Conference
6	Language Arts	Advisor	Computer Research / Advisor	Live Video Conference
7	Advisor	Language Arts	Computer Research / Advisor	Live Video Conference
8	Advisor	Advisor	Advisor / Computer Research	Live Video Conference
9	Advisor	Advisor	Advisor / Computer Research	Live Video Conference
10	STD's / Advisor	Advisor	Advisor / Computer Research	Live Video Conference
11	Advisor / Ball Game	Computer Research	Advisor	Live Video Conference
12	Advisor	Advisor / Computer Research	Advisor	Live Video Conference
13	Advisor / Computer Research	Ball Game / Advisor	Advisor	Live Video Conference
14	Foods	Advisor / Ball Game	Computer Research / Advisor	Live Video Conference

Friday

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APPENDIX J

CHARTS ILLUSTRATING THE STUDENT'S WEEK SCHEDULE AND TIMING OF LEADING QUESTIONS VIA E-MAIL

Group One: E-mail Schedule and Class Schedule

Day (Block)	Class	E-Mail Leading Questions received that day
Prior Friday		Questions to construct Virtual Child (See Appendix A.)
Monday (1a)	Intro (45 min)	
Monday (1b)	Music (45 min)	What purpose/role do music, art, and literature have in a culture? What purpose/role do music, art, and literature play during conflict?
Monday (2a)	Culture (45 min)	What purpose /role do culture and language have in a community? What purpose/role do culture and language have during conflict?
Monday (2b)	Staff Advisor #1 (45min)	
Monday (3a)	Communication & Conflict (45 min)	
Monday (3b)	Language Arts (45 min)	
Monday (4)	Computer Research – Staff Advisor #1 (90 min)	
Tuesday (1a)	Government (45 min)	What made your Virtual Child's government effective? How did your Virtual Child's government adapt to conflict?
Tuesday (1b)	Disease (45)	How do nutrition and health affect conflict?
Tuesday (2)	Art (90 min)	
Tuesday (3)	Computer Research – Staff Advisor #1 (90 min)	
Tuesday (4a)	STD's (45 min)	How and why did your Virtual Child's government respond to health issues (disease, nutrition, and pollution)?
Tuesday (4b)	Math (45 min)	How many acres does it take to feed a family of five using traditional Maya agricultural techniques? In addition to health issues, what other conditions could cause population fluctuations?
Wednesday (1a)	Computer Research – Staff Advisor #1 (45 min)	
Wednesday (1b)	Staff Advisor #1 (45min)	
Wednesday (2)	Staff Advisor #1 (90 min)	
Wednesday (3)	Staff Advisor #1 Video (90 min)	
Wednesday (4a)	Staff Advisor #1 (45 min)	
Wednesday (4b)	Ball Game (45 min)	How do sports contribute to cultural unity? Why do governments support sports?
Thursday (1)	Computer Research – Staff Advisor #1 (90 min)	
Thursday (2)	Staff Advisor #1 (90 min)	
Thursday (3)	Language Arts (90 min)	
Thursday (4)	Staff Advisor #1 (90 min)	
Friday (1a)	Computer Research – Staff Advisor #1 (45 min)	Conflict E-mail (See Appendix B.)
Friday (1b)	Staff Advisor #1 (45 min)	
Friday (2)	Foods (90 min)	What does a balanced daily diet consist of? List the foods that your Virtual Child probably consumes daily. List 10 ways in which poor health and nutrition affect you.
Friday (3)	Staff Advisor (90 min)	
Friday (4)	Live Video Conference – Staff Advisor #1 (90 min)	

Group Two: E-mail Schedule and Class Schedule

Day (Block)	Class	E-mail Leading Questions received that day
Prior Friday		Questions to construct Virtual Child (See Appendix A.)
Monday (1a)	Intro (45 min)	
Monday (1b)	Government (45 min)	What made your Virtual Child's government effective? How did your Virtual Child's government adapt to conflict?
Monday (2)	Foods (90 min)	What does a balanced daily diet consist of? List the foods that your Virtual Child probably consumes daily. List 10 ways in which poor health and nutrition affect you.
Monday (3a)	Language Arts (45 min)	
Monday (3b)	Communication & Conflict (45 min)	
Monday (4)	Computer Research – Staff Advisor #2 (90 min)	
Tuesday (1)	Staff Advisor #2 (90 min)	
Tuesday (2a)	Music (45 min)	What purpose/role do music, art, and literature have in a culture? What purpose/role do music, art, and literature have during conflict?
Tuesday (2b)	STD's (45 min)	How and why did your Virtual child's government respond to health issues (disease, nutrition, and pollution)?
Tuesday (3a)	Disease (45 min)	How do nutrition and health affect conflict?
Tuesday (3b)	Math (45 min)	How many acres does it take to feed a family of five using traditional Maya agricultural techniques? In addition to health issues, what other conditions could cause population fluctuations?
Tuesday (4)	Computer Research – Staff Advisor #2 (90 min)	
Wednesday (1)	Staff Advisor #2 (90 min)	
Wednesday (2a)	Culture (45 min)	What purpose/role do culture and language have in a community? What purpose/role do culture and language have during conflict?
Wednesday (2b)	Staff Advisor #2 (45 min)	
Wednesday (3)	Language Arts (90 min)	
Wednesday (4)	Video – Staff Advisor #2 (90 min)	
Thursday (1a)	Staff Advisor #2 (45 min)	
Thursday (1b)	Ball Game (45 min)	How do sports contribute to cultural unity? Why do governments Support sports?
Thursday (2)	Computer Research – Staff Advisor #2 (90 min)	
Thursday (3)	Staff Advisor #2 (90 min)	
Thursday (4)	Art (90 min)	
Friday (1)	Computer Research – Staff Advisor #2 (90 min)	Conflict E-mail (See Appendix B.)
Friday (2)	Staff Advisor #2 (90 min)	
Friday (3)	Advisor (Gabbert) (90 min)	
Friday (4)	Live Video Conference – Staff Advisor #2 (90 min)	

Group Three: E-mail Schedule and Class Schedule

Day (Block)	Class	E-mail Leading Questions received that day
Prior Friday		Questions to construct Virtual Child (See Appendix A.)
Monday (1a)	Intro (45 min)	
Monday (1b)	Disease (45 min)	How do nutrition and health affect conflict?
Monday (2)	Computer Research – Staff Advisor #3 (90 min)	
Monday (3a)	Staff Advisor #3 (45min)	
Monday (3b)	Staff Advisor #3 (45 min)	
Monday (4)	Foods (90 min)	What does a balanced daily diet consist of? List the foods that your Virtual Child probably consumes daily. List 10 ways in which poor health and nutrition affect you.
Tuesday (1a)	Staff Advisor #3 (45min)	
Tuesday (1b)	STD's (45min)	How and why did your Virtual Child's government respond to health issues (disease, nutrition, and pollution)?
Tuesday (2a)	Government (45 min)	What made your Virtual Child's government effective? How did your Virtual Child's government adapt to conflict?
Tuesday (2b)	Music (45 min)	What purpose/role do music, art, and literature have in a culture? What purpose/role do music, art, and literature play during conflict?
Tuesday (3)	Art (90 min)	
Tuesday (4)	Computer Research – Staff Advisor #3 (90 min)	
Wednesday (1a)	Computer Research – Staff Advisor #3 (45 min)	
Wednesday (1b)	Staff Advisor #3 (45 min)	
Wednesday (2a)	Communication & Conflict (45 min)	
Wednesday (2b)	Language Arts (45 min)	
Wednesday (3a)	Culture (45 min)	What purpose/role do culture and language have in a community? What purpose/role do culture and language have during conflict?
Wednesday (3b)	Math (45 min)	How many acres does it take to feed a family of five using Traditional Maya agricultural techniques? In addition to health issues, what other conditions could cause population fluctuation?
Wednesday (4)	Staff Advisor #3 (90 min)	
Thursday (1)	Video – Staff Advisor #3 (90 min)	
Thursday (2)	Staff Advisor #3 (90 min)	
Thursday (3)	Computer Research – Staff Advisor #3 (90 min)	
Thursday (4)	Language Arts (90 min)	
Friday (1)	Advisor (Stuby) (90 min)	
Friday (2a)	Computer Research – Staff Advisor #3 (45 min)	Conflict E-mail (See Appendix B.)
Friday (2b)	Staff Advisor #3 (45 min)	
Friday (3a)	Ball Game (45 min)	How do sports contribute to cultural unity? Why do governments support sports?
Friday (3b)	Staff Advisor #3 (45 min)	
Friday (4)	Live Video Conference – Staff Advisor #3 (90 min)	

Group Four: E-mail Schedule and Class Schedule

Day (Block)	Class	E-mail Leading Questions received that day
Prior Friday		Questions to construct Virtual Child (See Appendix A.)
Monday (1a)	Intro (45 min)	
Monday (1b)	STD's (45min)	How and why did your Virtual Child's government respond to health issues (disease, nutrition, and pollution?
Monday (2a)	Music (45 min)	What purpose/role do music, art, and literature have in a culture? What purpose/role do music, art, and literature have during conflict?
Monday (2b)	Culture (45 min)	What purpose/role do culture and language have in a community? What purpose/role do culture and language have during conflict?
Monday (3)	Computer Research – Staff Advisor #4 (90 min)	
Monday (4)	Staff Advisor #4 (90min)	
Tuesday (1)	Foods (90 min)	What does a balanced daily diet consist of? List the foods that your Virtual Child probably consumes daily. List 10 ways in which poor health and nutritjon affect you.
Tuesday (2a)	Communication & Conflict (45 min)	
Tuesday (2b)	Government (45 min)	What made your Virtual Child's government effective? How did your Virtual Child's government adapt to conflict?
Tuesday (3a)	Computer Research – Staff Advisor #4 (45 min)	
Tuesday (3b)	Language Arts (45 min)	
Tuesday (4a)	Math (45 min)	How many acres does it take to feed a family of five using traditional Maya agricultural techniques? In addition to health issues, what other conditions could cause population fluctuations?
Tuesday (4b)	Disease (45 min)	How do nutrition and health affect conflict?
Wednesday (1)	Staff Advisor #4 (90 min)	
Wednesday (2)	Computer Research – Staff Advisor #4 (90 min)	
Wednesday (3)	Advisor (Cebulla) (90 min)	
Wednesday (4a)	Ball Game (45 min)	How do sports contribute to cultural Unity? Why do governments support sports?
Wednesday (4b)	Staff Advisor #4 (45 min)	
Thursday (1)	Language Arts (90 min)	
Thursday (2)	Video – Staff Advisor #4 (90 min)	
Thursday (3)	Staff Advisor #4 (90 min)	
Thursday (4a)	Staff Advisor #4 (45 min)	
Thursday (4b)	Computer Research – Staff Advisor #4 (45 min)	
Friday (1)	Computer Research – Staff Advisor #4 (90 min)	Conflict E-mail (See Appendix B.)
Friday (2)	Art (90 min)	
Friday (3)	Staff Advisor #4 (90min)	
Friday (4)	Live Video Conference – Staff Advisor #4 (90 min)	

Group Five: E-mail Schedule and Class Schedule

Day (Block)	Class	E-mail Leading Questions received that day
Prior Friday		Questions to construct Virtual Child (See Appendix A.)
Monday (1a)	Intro (45 min)	
Monday (1b)	Computer Research – Staff Advisor #5 (45 min)	
Monday (2a)	STD's (45 min)	How and why did your Virtual Child's government respond to health issues (disease, nutrition, and pollution)?
Monday (2b)	Music (45 min)	What purpose/role do music, art, and literature have in a culture? What purpose/role do music, art, and literature play during conflict?
Monday (3a)	Culture (45 min)	What purpose/role do culture and language have in a community? What purpose/role do music, art, and literature have during conflict?
Monday (3b)	Staff Advisor #5 (45 min)	
Monday (4a)	Communication & Conflict (45 min)	
Monday (4b)	Language Arts (45 min)	
Tuesday (1)	Computer Research – Staff Advisor #5 (90 min)	
Tuesday (2)	Foods (90 min)	What does a balanced daily diet consist of?
Tuesday (3a)	Government (45 min)	What made your Virtual Child's government effective? How did your Virtual Child's government adapt to change?
Tuesday (3b)	Disease (45 min)	How do nutrition and health affect conflict?
Tuesday (4)	Art (90 min)	
Wednesday (1)	Video- Staff Advisor #5 (90 min)	
Wednesday (2)	Computer Research – Staff Advisor #5 (90 min)	
Wednesday (3a)	Math (45 min)	How many acres does it take to feed a family of five using traditional Maya agricultural techniques? In addition to health issues, what other conditions could cause population fluctuations?
Wednesday (3b)	Staff Advisor #5 (45 min)	
Wednesday (4)	Language Arts (90 min)	
Thursday (1a)	Ball Game (45 min)	How do sports contribute to cultural unity? Why do governments support sports?
Thursday (1b)	Advisor (Staff) (45 min)	
Thursday (2)	Advisor (Podbielski) (90 min)	
Thursday (3)	Staff Advisor #5 (90 min)	
Thursday (4a)	Computer Research – Staff Advisor #5 (45 min)	
Thursday (4b)	Staff Advisor #5 (45 min)	
Friday (1)	Staff Advisor #5 (90 min)	
Friday (2)	Computer Research – Staff Advisor #5 (90 min)	Conflict E-mail (See Appendix B.)
Friday (3)	Advisor (Cebulla) (90 min)	
Friday (4)	Live Video Conference – Staff Advisor #5 (90 min)	

Group Six: E-mail Schedule and Class Schedule

Day (Block)	Class	E-mail Leading Questions received that day
Prior Friday		Questions to construct Virtual Child (See Appendix A.)
Monday (1a)	Intro (45 min)	
Monday (1b)	Computer Research - Staff Advisor #6 (45 min)	
Monday (2a)	Math (45 min)	How many acres does it take to feed a family of five using traditional Maya agricultural techniques? In addition to health issues, what other conditions could cause population fluctuations?
Monday (2b)	Staff Advisor #6 (45 min)	
Monday (3a)	Music (45min)	What purpose/role do music, art, and literature have in a culture? What purpose/role do music, art, and literature have during conflict?
Monday (3b)	Disease (45 min)	How do nutrition and health affect conflict?
Monday (4a)	Culture (45 min)	What purpose/role do culture and language have in a community? What purpose/role do culture and language have during conflict?
Monday (4b)	Communication & Conflict (45 min)	
Tuesday (1a)	STD's (45 min)	How and why did your Virtual child's government respond to health issues (disease, nutrition, and pollution?
Tuesday (1b)	Staff Advisor #6 (45min)	
Tuesday (2)	Computer Research – Staff Advisor #6 (90 min)	
Tuesday (3a)	Staff Advisor #6 (45min)	
Tuesday (3b)	Government (45 min)	What made your Virtual Child's government effective? How did your Virtual Child's government adapt to conflict?
Tuesday (4)	Foods (90 min)	What does a balanced daily diet consist of? List the foods that your Virtual Child probably consumes daily. List 10 ways in which poor health and nutrition affect you.
Wednesday (1)	Art (90 min)	
Wednesday (2)	Computer Research – Staff Advisor #6 (90 min)	
Wednesday (3a)	Language Arts (45 min)	
Wednesday (3b)	Staff Advisor #6 (45 min)	
Wednesday (4)	Staff Advisor #6 (90 min)	
Thursday (1)	Computer Research – Staff Advisor #6 (90 min)	
Thursday (2a)	Staff Advisor #6 (45 min)	
Thursday (2b)	Ball Game (45 min)	How do sports contribute to cultural unity? Why do governments support sports?
Thursday (3)	Video (Forzano) (90 min)	
Thursday (4)	Staff Advisor #6 (90 min)	
Friday (1)	Language Arts (90 min)	
Friday (2)	Staff Advisor #6 (90 min)	
Friday (3a)	Computer Research – Staff Advisor #6 (45 min)	Conflict E-mail (See Appendix B.)
Friday (3b)	Staff Advisor #6 (45 min)	
Friday (4)	Live Video Conference – Staff Advisor #6 (90 min)	

Group Seven: E-mail Schedule and Class Schedule

Day (Block)	Class	E-mail Leading Questions received that day
Prior Friday		Questions to construct Virtual Child (See Appendix A.)
Monday (1a)	Intro (45 min)	
Monday (1b)	Computer Research – Staff Advisor #7 (45 min)	
Monday (2a)	Communication & Conflict (45 min)	
Monday (2b)	Math (45 min)	How many acres does it take to feed a family of five using traditional Maya agricultural techniques? In addition to health issues, what other conditions could cause population fluctuation?
Monday (3a)	Disease (45 min)	How do nutrition and health affect conflict?
Monday (3b)	Music (45 min)	What purpose/role do music, art, and literature have in a culture? What purpose/role do music, art, and literature have during conflict?
Monday (4a)	Staff Advisor #7 (45 min)	
Monday (4b)	Culture (45 min)	What purpose/role do culture and language have in a culture? What purpose/role do culture and language have during conflict?
Tuesday (1)	Computer Research – Staff Advisor #7 (90 min)	
Tuesday (2a)	Language Arts (45 min)	
Tuesday (2b)	Staff Advisor #7 (45 min)	
Tuesday (3)	Video – Staff Advisor #7 (90 min)	
Tuesday (4)	Advisor (Barrett) (90 min)	
Wednesday (1)	Foods (90 min)	What does a balanced daily diet consist of? List the foods that your Virtual Child probably consumes daily. List 10 ways in which poor health and nutrition affect you.
Wednesday (2a)	Government (45 min)	What made your Virtual Child's government effective? How did your Virtual Child's government adapt to conflict?
Wednesday (2b)	STD's (45 min)	How and why did your Virtual Child's government respond to health issues (disease, nutrition, and pollution)?
Wednesday (3)	Art (90 min)	
Wednesday (4)	Computer Research – Staff Advisor #7 (90 min)	
Thursday (1)	Computer Research – Staff Advisor #7 (90 min)	
Thursday (2a)	Ball Game (45 min)	How do sports contribute to cultural unity? Why do governments support sports?
Thursday (2b)	Staff Advisor #7 (45 min)	
Thursday (3)	Advisor (Shive) (90 min)	
Thursday (4)	Staff Advisor #7 (90 min)	
Friday (1)	Staff Advisor #7 (90 min)	
Friday (2)	Language Arts (90 min)	
Friday (3a)	Computer Research – Staff Advisor #7 (45 min)	Conflict E-mail (See Appendix B.)
Friday (3b)	Staff Advisor #7 (45 min)	
Friday (4)	Live Video Conference – Staff Advisor #7 (90 min)	

Group Eight: E-mail Schedule and Class Schedule

Day (Block)	Class	E-mail Leading Questions received that day
Prior Friday		Questions to construct Virtual Child (See Appendix A.)
Monday (1a)	Music (45 min)	What purpose/role do music, art, and literature have in a culture? What purpose/role do music, art, and literature have during conflict?
Monday (1b)	Intro (45 min)	
Monday (2a)	Language Arts (45 min)	
Monday (2b)	Communication & Conflict (45 min)	
Monday (3a)	Math (45 min)	How many acres does it take to feed a family of five using traditional Maya agricultural techniques? In addition to health issues, what other conditions could cause population fluctuations?
Monday (3b)	Culture (45 min)	What purpose/role do culture and language have in a community? What purpose/role do culture and language have during conflict?
Monday (4)	Computer Research – Staff Advisor #8 (90 min)	
Tuesday (1)	Video- Staff Advisor #8 (90 min)	
Tuesday (2a)	Staff Advisor #8 (45 min)	
Tuesday (2b)	Computer Research – Staff Advisor #8 (45 min)	
Tuesday (3)	Language Arts (90 min)	
Tuesday (4a)	Disease (45 min)	How do nutrition and health affect conflict?
Tuesday (4b)	STD's (45 min)	How and why did your Virtual Child's government respond to health issues (disease, nutrition, and pollution)?
Wednesday (1a)	Government (45 min)	What made your Virtual Child's government effective? How did your Virtual Child's government adapt to conflict?
Wednesday (1b)	Staff Advisor #8 (45 min)	
Wednesday (2)	Foods (90 min)	What does a balanced daily diet consist of? List the foods that your Virtual Child probably consumes daily. List 10 ways in which poor health and nutrition you.
Wednesday (3)	Computer Research – Staff Advisor #8 (90 min)	
Wednesday (4)	Art (90 min)	
Thursday (1)	Advisor (Stuby) (90 min)	
Thursday (2)	Computer Research – Staff Advisor #8 (90 min)	
Thursday (3)	Staff Advisor #8 (90 min)	
Thursday (4a)	Ball Game (45 min)	How do sports contribute to cultural unity? Why do governments support sports?
Thursday (4b)	Staff Advisor #8 (45 min)	
Friday (1)	Advisor (Forzano) (90 min)	
Friday (2)	Staff Advisor #8 (90 min)	
Friday (3a)	Staff Advisor #8 (45 min)	
Friday (3b)	Computer Research – Staff Advisor #8 (45 min)	Conflict E-mail (See Appendix B.)
Friday (4)	Live Video Conference – Staff Advisor #8 (90 min)	

Group Nine: E-mail Schedule and Class Schedule

Day (Block)	Class	E-mail Leading Questions received that day
Prior Friday		Questions to construct Virtual Child (See Appendix A.)
Monday (1a)	Government (45 min)	What made your Virtual Child's government effective? How did your virtual Child's government adapt to conflict?
Monday (1b)	Intro (45 min)	
Monday (2)	Computer Research – Staff Advisor #9 (90 min)	
Monday (3)	Foods (90 min)	What does a balanced daily diet consist of? List the foods that your Virtual Child probably consumes daily. List 10 ways in which poor health and nutrition affect you?
Monday (4a)	Disease (45 min)	How do nutrition and health affect conflict?
Monday (4b)	STD's (45 min)	How and why did your Virtual Child's government respond to health issues (disease, nutrition, and pollution)?
Tuesday (1a)	Music (45 min)	What purpose/role do music, art, and literature have in a culture? What purpose/role do music, art, and literature have during conflict?
Tuesday (1b)	Staff Advisor #9 (45 min)	
Tuesday (2a)	Computer Research – Staff Advisor #9 (45 min)	
Tuesday (2b)	Culture (45 min)	What purpose/role do culture and language have in a culture? What purpose/role do culture and language have during conflict?
Tuesday (3a)	Math (45 min)	How many acres does it take to feed a family of five using traditional Maya agricultural techniques? In addition to health issues, what other conditions could cause population fluctuations?
Tuesday (3b)	Language Arts (45 min)	
Tuesday (4)	Video – Staff Advisor #9 (90 min)	
Wednesday (1)	Computer Research – Staff Advisor #9 (90 min)	
Wednesday (2)	Art (90 min)	
Wednesday (3)	Staff Advisor #9 (90 min)	
Wednesday (4)	Staff Advisor #9 (90 min)	
Thursday (1)	Language Arts (90 min)	
Thursday (2)	Computer Research – Staff Advisor #9 (90 min)	
Thursday (3a)	Communication & Conflict (45 min)	
Thursday (3b)	Staff Advisor #9 (45 min)	
Thursday (4a)	Staff Advisor #9 (45 min)	
Thursday (4b)	Ball Game (45 min)	How do sports contribute to cultural unity? Why do governments support sports?
Friday (1)	Staff Advisor #9 (90 min)	
Friday (2)	Advisor (Podbielski) (90 min)	
Friday (3a)	Staff Advisor #9 (45 min)	
Friday (3b)	Computer Research – Staff Advisor #9 (45 min)	Conflict E-mail (See Appendix B.)
Friday (4)	Live Video Conference – Staff Advisor #9 (90 min)	

Group Ten: E-mail Schedule and Class Schedule

Day (Block)	Class	E-mail Leading Questions received that day
Prior Friday		Questions to construct Virtual Child (See Appendix A.)
Monday (1a)	Disease (45 min)	How do nutrition and health affect conflict?
Monday (1b)	Intro (45 min)	
Monday (2a)	Government (45 min)	What makes your Virtual Child's government effective? How did your Virtual Child's government adapt to conflict?
Monday (2b)	Language Arts (45 min)	
Monday (3)	Computer Research – Staff Advisor #10 (90 min)	
Monday (4a)	Math (45 min)	How many acres does it take to feed a family of five using traditional Maya agricultural techniques? In addition to health issues, what other conditions could cause population fluctuations?
Monday (4b)	Staff Advisor #10 (45 min)	
Tuesday (1a)	Staff Advisor #10 (45 min)	
Tuesday (1b)	Music (45 min)	What purpose/role do music, art, and literature have in a culture? What purpose/role do music, art, and literature have during conflict?
Tuesday (2a)	Culture (45 min)	What purpose/role do culture and language have in a community? What purpose/role do culture and language have during conflict?
Tuesday (2b)	Communication & Conflict (45 min)	
Tuesday (3)	Computer Research – Staff Advisor #10 (90 min)	
Tuesday (4)	Staff Advisor #10 (90 min)	
Wednesday (1a)	Ball Game (45 min)	How do sports contribute to cultural unity? Why do governments support sports?
Wednesday (1b)	Computer Research – Staff Advisor #10 (45 min)	
Wednesday (2)	Video – Staff Advisor #10 (90 min)	
Wednesday (3a)	Staff Advisor #10 (45 min)	
Wednesday (3b)	Language Arts (45 min)	
Wednesday (4)	Foods (90 min)	What does a balanced daily diet consist of? List the foods that your Virtual Child probably consumes daily. List 10 ways in which poor health and nutrition affect you.
Thursday (1)	Art (90 min)	
Thursday (2)	Language Arts (90 min)	
Thursday (3)	Staff Advisor #10 (90 min)	
Thursday (4)	Computer Research – Staff Advisor #10 (90 min)	
Friday (1a)	STD's (45 min)	How and why did your Virtual Child's government respond to health issues (disease, nutrition, and pollution)?
Friday (1b)	Staff Advisor #10 (45 min)	
Friday (2)	Advisor (Shive) (90 min)	
Friday (3a)	Staff Advisor #10 (45 min)	
Friday (3b)	Computer Research – Staff Advisor #10 (45 min)	Conflict E-mail (See Appendix B.)
Friday (4)	Live Video Conference- Staff Advisor #10 (90 min)	

Group Eleven: E-mail Schedule and Class Schedule

Day (Block)	Class	E-mail Leading Questions received that day
Prior Friday		Questions to construct Virtual Child (See Appendix A.)
Monday (1a)	STD's (45 min)	How do nutrition and health affect conflict?
Monday (1b)	Intro (45 min)	
Monday (2a)	Staff Advisor #11 (45 min)	
Monday (2b)	Government (45 min)	What made your Virtual Child's government effective? How did your Virtual Child's government adapt to conflict?
Monday (3)	Computer Research – Staff Advisor #11 (90 min)	
Monday (4a)	Staff Advisor #11 (45 min)	
Monday (4b)	Disease (45 min)	How and why did your Virtual Child's government respond to health issues (disease, nutrition, and pollution)?
Tuesday (1)	Computer Research – Staff Advisor #11 (90 min)	
Tuesday (2)	Video – Staff Advisor #11 (90 min)	
Tuesday (3a)	Music (45 min)	What purpose/role do music, art, and literature have in a culture? What purpose/role do music, art, and literature have during conflict?
Tuesday (3b)	Culture (45 min)	What purpose/role do culture and language have in a community? What purpose/role do culture and language have during conflict?
Tuesday (4a)	Language Arts (45 min)	
Tuesday (4b)	Staff Advisor #11 (45 min)	
Wednesday (1)	Language Arts (90 min)	
Wednesday (2a)	Math (45 min)	How many acres does it take to feed a family of five using traditional Maya agricultural techniques? In addition to health issues, what other conditions could cause population fluctuations?
Wednesday (2b)	Communication & Conflict (45 min)	
Wednesday (3)	Staff Advisor #11 (90 min)	
Wednesday (4)	Computer Research – Staff Advisor #11 (90 min)	
Thursday (1)	Foods (90 min)	What does a balanced daily diet consist of? List the foods that your Virtual Child probably consumes daily. List 10 ways in which poor health and nutrition affect you.
Thursday (2)	Art (90 min)	
Thursday (3a)	Staff Advisor #11 (45 min)	
Thursday (3b)	Computer Research – Staff Advisor #11 (45 min)	
Thursday (4)	Staff Advisor #11 (90 min)	
Friday (1a)	Staff Advisor #11 (45 min)	
Friday (1b)	Ball Game (45 min)	How do sports contribute to cultural unity? Why do governments support sports?
Friday (2)	Computer Research – Staff Advisor #11 (90 min)	Conflict E-mail (See Appendix B.)
Friday (3)	Advisor (Barrett) (90 min)	
Friday (4)	Live Video Conference – Staff Advisor #11 (90 min)	

Group Twelve: E-mail Schedule and Class Schedule

Day (Block)	Class	E-mail Leading Questions received that day
Prior Friday		Questions to construct Virtual Child (See Appendix A.)
Monday (1a)	Computer Research – Staff Advisor #12 (45 min)	
Monday (1b)	Intro (45 min)	
Monday (2)	Video – Staff Advisor #12 (90 min)	
Monday (3a)	Government (45 min)	What made your Virtual Child's government effective? How did your Virtual Child's government adapt to conflict?
Monday (3b)	Math (45 min)	How many acres does it take to feed a family of five using traditional Maya agricultural techniques? In addition to health issues, what other conditions could cause population fluctuations?
Monday (4a)	STD's (45 min)	How and why did your Virtual Child's government respond to health issues (disease, nutrition, and pollution)?
Monday (4b)	Staff Advisor #12 (45 min)	
Tuesday (1)	Staff Advisor #12 (90 min)	
Tuesday (2)	Computer Research – Staff Advisor #12 (90 min)	
Tuesday (3a)	Culture (45 min)	What purpose/role do culture and language have in a community? What purpose/role do culture and language have during conflict?
Tuesday (3b)	Music (45 min)	What purpose/role do music, art, and literature have in a culture? What purpose/role do music, art, and literature have during conflict?
Tuesday (4)	Language Arts (90 min)	
Wednesday (1a)	Disease (45 min)	How do nutrition and health affect conflict?
Wednesday (1b)	Ball Game (45 min)	How do sports contribute to cultural unity? Why do governments support sports?
Wednesday (2)	Language Arts (90 min)	
Wednesday (3)	Computer Research- Staff Advisor #12 (90 min)	
Wednesday (4a)	Communication & Conflict (45 min)	
Wednesday (4b)	Staff Advisor #12 (45 min)	
Thursday (1)	Staff Advisor #12 (90 min)	
Thursday (2)	Foods (90 min)	What does a balanced daily diet consist of? List the foods that your Virtual Child probably consumes daily. List 10 ways which poor health and nutrition affect you.
Thursday (3)	Art (90 min)	
Thursday (4)	Computer Research – Staff Advisor #12 (90 min)	
Friday (1)	Staff Advisor #12 (90 min)	
Friday (2a)	Staff Advisor #12 (45 min)	
Friday (2b)	Computer Research – Staff Advisor #12 (45 min)	Conflict E-mail (See Appendix B.)
Friday (3)	Advisor (Archer) (90 min)	
Friday (4)	Live Video Conference – Staff Advisor #12 (90 min)	

Group Thirteen: E-mail Schedule and Class Schedule

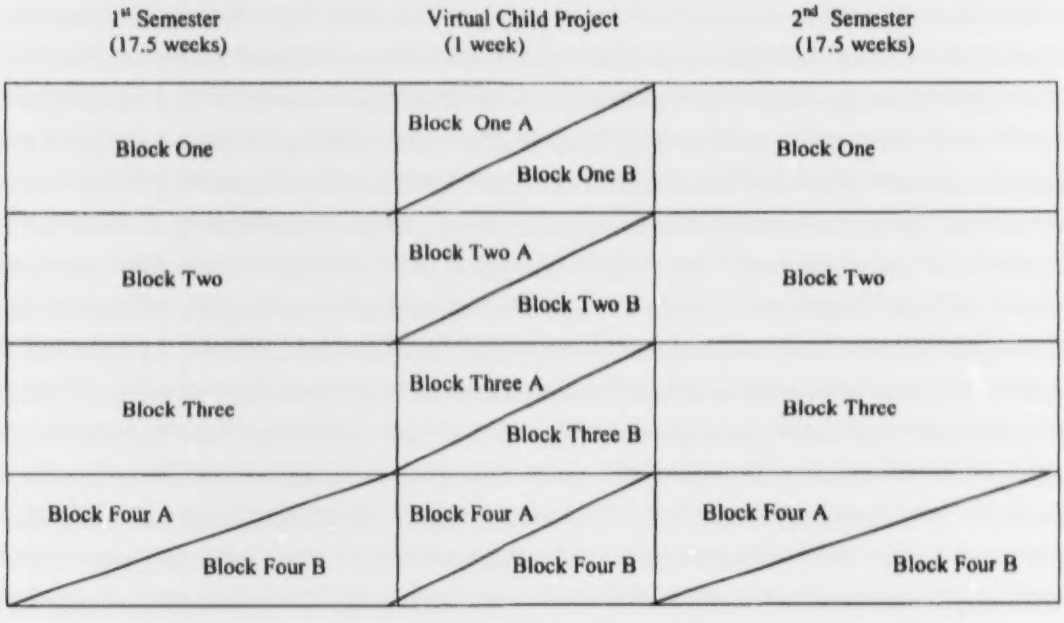
Day (Block)	Class	E-mail Leading Questions received that day
Prior Friday		Questions to construct Virtual Child (See Appendix A.)
Monday (1a)	Computer Research – Staff Advisor #13 (45 min)	
Monday (1b)	Intro Session (45 min)	
Monday (2)	Computer Research – Staff Advisor #13 (90 min)	
Monday (3)	Video – Staff Advisor #13 (90 min)	
Monday (4a)	Language Arts (45 min)	
Monday (4b)	Math (45 min)	How many acres does it take to feed a family of five using traditional Maya agricultural techniques? In addition to health issues, what other conditions could cause population fluctuations?
Tuesday (1)	Art (90 min)	
Tuesday (2a)	STD's (45 min)	How and why did your Virtual Child's government respond to health issues (disease, nutrition, and pollution)?
Tuesday (2b)	Staff Advisor #13 (45 min)	
Tuesday (3a)	Staff Advisor #13 (45 min)	
Tuesday (3b)	Computer Research – Staff Advisor #13 (45 min)	
Tuesday (4a)	Culture (45 min)	What purpose/role do culture and language have in a community? What purpose/role do culture and language have during conflict?
Tuesday (4b)	Staff Advisor #13 (45 min)	
Wednesday (1a)	Music (45 min)	What purpose/role do music, art, and literature have in a culture? What purpose/role do music, art, and literature have during conflict?
Wednesday (1b)	Disease (45 min)	How nutrition and health affect conflict?
Wednesday (2a)	Staff Advisor #13 (45 min)	
Wednesday (2b)	Government (45 min)	What made your Virtual Child's government effective? How did your Virtual Child's government adapt to conflict?
Wednesday (3)	Computer Research – Staff Advisor #13 (90 min)	
Wednesday (4a)	Staff Advisor #13 (45 min)	
Wednesday (4b)	Communication & Conflict (45 min)	
Thursday (1)	Staff Advisor #13 (90 min)	
Thursday (2)	Language Arts (90 min)	
Thursday (3)	Computer Research – Staff Advisor #13 (90 min)	
Thursday (4)	Foods (90 min)	What does a balanced daily diet consist of? List the foods that your Virtual Child probably consumes daily. List 10 ways in which poor health and nutrition affect you.
Friday (1a)	Staff Advisor #13 (45 min)	
Friday (1b)	Computer Research – Staff Advisor #13 (45 min)	Conflict E-mail (See Appendix B.)
Friday (2a)	Ball Game (45 min)	How do sports contribute to cultural unity? Why do governments support sports?
Friday (2b)	Staff Advisor #13 (45 min)	
Friday (3)	Advisor (Podbielski) (90 min)	
Friday (4)	Live Video Conference – Staff Advisor #13 (90 min)	

Group Fourteen: E-mail Schedule and Class Schedule

Day (Block)	Class	E-mail Leading Questions received that day
Prior Friday		Questions to construct Virtual Child (See Appendix A.)
Monday (1a)	Computer Research – Staff Advisor #14 (45 min)	
Monday (1b)	Intro Session (45 min)	
Monday (2a)	Staff Advisor #14 (45 min)	
Monday (2b)	STD's (45 min)	How and why did your Virtual Child's government respond to health issues (disease, nutrition, and pollution)?
Monday (3)	Art (90 min)	
Monday (4)	Video – Staff Advisor #14 (90 min)	
Tuesday (1a)	Disease (45 min)	How do nutrition and health affect conflict?
Tuesday (1b)	Government (45 min)	What made your Virtual Child's government effective? How did your Virtual Child's government adapt to conflict?
Tuesday (2a)	Language Arts (45 min)	
Tuesday (2b)	Math (45 min)	How many acres does it take to feed a family of five using traditional Maya agricultural techniques? In addition to health issues, what other conditions could cause population fluctuations?
Tuesday (3)	Staff Advisor #14 (90 min)	
Tuesday (4)	Computer Research – Staff Advisor #14 (90 min)	
Wednesday (1a)	Staff Advisor #14 (45 min)	
Wednesday (1b)	Music (45 min)	What purpose/role do music, art, and literature have in a culture? What purpose/role do music, art, and literature have during conflict?
Wednesday (2a)	Staff Advisor #14 (45 min)	
Wednesday (2b)	Culture (45 min)	What purpose/role do culture and language have in a community? What purpose/role do culture and language have during conflict?
Wednesday (3a)	Communication & Conflict (45 min)	
Wednesday (3b)	Staff Advisor #14 (45 min)	
Wednesday (4)	Computer Research – Staff Advisor #14 (90 min)	
Thursday (1)	Staff Advisor #14 (90 min)	
Thursday (2)	Staff Advisor #14 (90 min)	
Thursday (3a)	Computer Research – Staff Advisor #14 (45 min)	
Thursday (3b)	Staff Advisor #14 (45 min)	
Thursday (4)	Language Arts (90 min)	
Friday (1)	Foods (90 min)	What does a balanced daily diet consist of? List the foods that your Virtual Child probably consumes daily. List 10 ways which poor health and nutrition affect you.
Friday (2a)	Staff Advisor #14 (45 min)	
Friday (2b)	Ball Game (45 min)	How do sports contribute to cultural unity? Why do governments support sports?
Friday (3a)	Computer Research – Staff Advisor #14 (45 min)	Conflict E-mail (See Appendix B.)
Friday (3b)	Staff Advisor #14 (45 min)	
Friday (4)	Live Video Conference – Staff Advisor #14 (90 min)	

APPENDIX K
PLACEMENT OF VIRTUAL CHILD PROJECT IN SCHOOL YEAR

PLACEMENT OF VIRTUAL CHILD IN SCHOOL YEAR



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APPENDIX L

INTERDISCIPLINARY LESSONS

Visual Art Activity

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Objectives:

1. The student will learn about the Maya writing format and codex materials.
2. The student will apply and report the information which was researched in the Virtual Child project using the language of visual arts.

Supplies:

Cardboard
Good quality paper
Watercolor pencils
Scissors
Tape
Pencils

Activity 1:

The instructor hands students a flyer with words written on it using the Maya format for writing, i.e., vertically in columns of two and from left to right. Students are allotted 3 minutes to interpret the information and are asked to write what the flyer says. The instructor answers questions about the Maya writing format after the students have interpreted the flyer. (See flyer following lesson.)

Extended Activity:

Students who wish to know more about the Maya writing system are referred to www.halfmoon.org.
Design glyphs of your own name and the names of your team members. Transfer these glyphs to the cover of the book produced in this project.

Activity 2:

The instructor hands each team three 8" x18" pieces of paper. Students are asked how they would make a book if the only available paper-like material was in long, narrow strips. Through discussion, the instructor leads the students to realize what and why a Maya codex or book has an accordian shape.
Students will look at segments of the surviving Codices at the following website:
http://pages.prodigy.com/Gbonline/awmayac.html.

Extended Activity:

Students may research fibers used for writing materials in other cultures at
http://daphne.palomar.edu/wayne/traug99.htm .
Write a 500 word paragraph discussing the impact of materials on the art product.

Activity 3:

Team Member One -

Using good quality watercolor pencils/collage medium, one team member will illustrate what their Virtual Child looks like on one of the 8"x 18" pieces of paper. Eye color, hair color, skin color, body adornment, and period clothing must be included. (These items reflect the e-mail Virtual Child questions). The other members of the Virtual Child's family are to be included in the background of the picture. Using the Maya writing format, the team member responsible for this page of the codex will note in English who each character is and their relationship to their Virtual Child. (The labeling could be done in Spanish if time permitted.) This information may be placed wherever it is needed to produce an aesthetic effect.
(Students who are uncomfortable relying solely on drawing may mix collage with drawing by using images captured from the Internet. This may require some additional research time. Students may hand in finished product at the end of the week.)

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Team Member Two -
On the second 8"x 18" piece of paper, and using watercolor pencil/collage medium, a second team member will render the daily environment of the team's Virtual Child. The type of house the Virtual Child lives in, the part of the city of the Virtual Child, and a sampling of the natural environment surrounding the Virtual Child's city should be included. House, city, and natural environment should be labeled using the Maya writing format and placed where the labels will produce an aesthetic effect. (Again, labeling could be done in Spanish.)

Team Member Three -
On the third piece of 8" x 18" paper, and using water color pencils/collage medium, a third team member will illustrate the environmental, political, or health/nutritional issue which seems to be causing a negative effect on their Virtual Child's life. This issue should be labeled using the Maya writing format and placed where the explanation will produce an aesthetic effect.

Team Member Four -
The fourth team member will cut out two cardboard covers for each end of the codex. The size of the two cardboard pieces should be at least 8" x 18". The two covers can be slightly larger but must be equal regardless of the size. The cardboard covers should be painted to represent wood bark. Tape the three pages together vertically, accordian-style, and attach the first and third pages to separate cardboard covers.

Assessment:
1. The student will successfully complete their book about their Virtual Child.
2. The student will digitally photograph each page of their book for inclusion on their Virtual Child Project disc (or CD).

Comprehensive Arts Education: Ohio's Model Competency-based Program objectives addressed:
High School Level I:
Performance Objectives: The learner will develop or co-develop with others a presentation in one or more of the arts, grounding its artistic merit within historical, social, cultural, critical, and aesthetic parameters, and taking into account the merit of the arts form or arts concept in an in-depth manner.
High School Level II:
Instructional Objectives:
Goal I:
a. Learners will explore the human experience as it relates to an arts form in terms of symbols and practices, reflecting on change and consistency across cultures and times.
Goal II:
b. Learners will transform a work of art using a new or different technology.

Flyer for Activity 1:

Maya Books Were written Vertically, top To bottom In columns Of two Words. Dates were almost always included because the subjects were usually historical events, real or politically expedient. Often Maya codices cited astronomical events which coincided with the significant event. This documents the importance of timing ceremonies with astronomical alignments. 2000.

Math Lesson

For Interdisciplinary Project

Connie Shive
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David Andres
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Time: 45 minutes

Objective: Students will make a graph using Excel which illustrates the population of Mayan people during the years AD 250 through AD 1500.

Learning Outcomes Addressed:

9th Grade Proficiency Test Outcome # 12 – Students will read and interpret graphs and identify patterns, note trends, and draw conclusions from the data.

New State Graduation Exit Exam – Use mathematical processes that cross content domains. Communicate mathematical ideas.

This lesson will also incorporate the Technology Foundation Standards for Students.

Lesson Activities: -Hand out several examples of graphs and discuss how we might interpret them.

-Discuss the parts of the graph.
-Carefully explain how the scale effects the graph.
-Discuss how we could change the interpretation if we change the scale.
-Give students a set of data (Using the Mayan Culture) and have them make a graph which illustrates the data. Make certain they use all the appropriate parts for their graphs.

Technology Incorporation: Use the View Sonic and the laptop to show students how this same graph could be made using Excel.

Assignment: Students will use given websites to research the population numbers of the Mayan people from the years AD 250 - AD 1500. After finding their data, they will create a graph, using Excel to illustrate the data.
Students will also be asked to answer several questions on the interpretation of their graph. (See attached assignment sheet.)

Assessment:
1. The successful completion of the graph of the Maya population from AD250 through AD 1500.
2. The successful completion answers to Questions 1, 2, & 3.

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Interdisciplinary Project
Student Assignment
Math Lesson

Students will:

1.) Go to the websites listed below and search for population numbers of the Maya people from the years AD 250 through AD 1500.

2.) Use these numbers to create a graph. This graph can be any type you choose. The graph must contain all the appropriate parts which were discussed in the lesson. We would like you to use Excel to do this, but you can opt to create your graph by hand. If you have questions on the use of Excel, you may see Mrs. Shive or Mr. Deichler for assistance.

3.) Save this graph on a disk or you may submit a hard copy.

4.) Use the graph you just produced to answer the following questions on a separate sheet of paper. Please use complete sentences and answer clearly and concisely.

1.) Over the period of time you were asked to chart, what is the overall trend of the population of the Mayan people?

2.) Based on your knowledge of the Mayan culture, speculate what are some possible reasons or conflicts which caused this trend?

3.) Based on your conclusions from question #2, make a hypothesis about the population of any culture. (i.e., If there is not enough food to feed any entire population, the population will decrease ?

Websites:

http://proquest.umi.com/pqd **Infohio.org - go to Proquest - article (full text)**
Restall, Matthew. "The ties that bind: Social cohesion and the Yucatec Maya family". Journal of Family History, Greenwich; Oct., 1998.
http://www.encyclopedia.com/printable/08239.html
http://www.azteca.net/aztec/indpop.html - **add all that say Maya**
http://search.eb.com/bol/topic?eu=118692&sctn=3 - **Britannica.com**

THE TIES THAT BIND: SOCIAL COHESION AND THE YUCATEC MAYA FAMILY

Matthew Restall

This analysis of unstudied census materials and Maya-language notarial records explores the nature of Maya familial organization and identity in colonial Yucatan, Mexico. At the intersection of the two primary units of Maya society; the community and the patronym-group, existed the extended family, which was formed through marriage alliances within largely endogamous communities between strictly exogamous patronym-groups, expressed as a multiunit patriarchal household of about ten members, and given cohesion by community and patronym-group identities and by familial participation in working and owning property. Marriages may have been later, and separate newlywed households less common, than previously suggested.

There is at first glance a certain opacity to the Maya family in colonial Yucatan. Reading through the many hundreds of extant notarial records in Yucatec Maya (1) - mostly wills, petitions, and land records (2)-the family unit is at once omnipresent, and yet its nature and form are elusive; for example, a satisfactory cognate to the English term *family* does not appear in the Yucat&c written record. Nancy Farriss, in a study of the colonial Mayas primarily based on Spanish-language sources, emphasized the importance of the extended family but likened it to "an undiscovered planet or star whose existence and movements are inferred from the behavior of known bodies or from the debris it has left after ceasing to exist." (3)

A closer reading, however, of colonial Maya-language archival material and colonial census records can provide a clearer picture of the nature of Maya familial organization and identity. The purpose of this article is to make use of this evidence both at a micro level, by proposing details on marriage and settlement that confirm, complement, or clarify conclusions by Farriss and others, and at a macro level, by arguing that the Maya family, as an important focus of identity as well as social and economic activity, existed at the intersection of the two primary units of Maya society, the *cah* (the semiautonomous municipal community) and the *chibal* (the patronym group). (4)

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The immediate historiographical context of this argument is Farriss's suggestion that, at the time of her writing, more than a dozen years ago, no evidence had arisen of "phratries, moieties, clans, or any equivalent to the Aztec *calpulli* or the Andean *ayllu*," necessitating her "tentative" conclusion that

> beyond the level of the extended family ... social grouping had shifted from lineage to locality; to the territorilly based community of village or town and the wards or precincts into which they were divided. At both these levels,
>
> common residence had replaced common descent as the focus of loyalty and the basis for defining rights and obligations, roles and statuses. (5)

These statements can now be modified and clarified: the community, identified by Mayas as the cah (the equivalent to the Nahua *altepetl*), consolidated its position in the colonial period as the foundation of indigenous society and culture. Its subdivisions were not "wards or precincts" but the social groupings of chibal members and marriage-based alliances; it was thus the patronym-group (chibal) that functioned as the unit (equivalent to the calpulli) for which Farriss found no evidence. Rather than these two levels being "beyond" that of the extended family, the latter existed where community (cah) and patronym-group (chibal) overlapped, that is, where members of the same chibal (lineage) lived in the same cah (locality); thus at the local level, there was no shift from lineage to locality, but a continual reconciliation of the two, expressed in structural terms in the family.

With respect to the broader historiographical context, most of the studies that give treatment to the family in New Spain try to come to grips-as does this article-with the nature of extended family organization. Recent scholarship on Spaniards in colonial Mexico has emphasized the importance of extended family networks and of marriage as economic strategy. (6) Some works also recognize the existence of significant numbers of nuclear families, (7) as well as taking into account the cohesive or divisive effects of such factors as love, sexuality, and ethnicity. (8) Of more direct relevance to the Yucatec Maya are studies of other Mesoamerican societies during this period. These have also stressed the centrality of extended family units: an elemental part of the social cohesion of the *chinamit-molab* of the Quiche Mayas, a municipal unit similar to the Yucatec community (cah), was its self-identification with a dominant lineage or extended family; (9) indicative of the crucial economic role of the extended family in Cakchiquel society was the success of one late-seventeenth-century family in building, what was in effect a "family corporation"; (10) the Nahuas of central Mexico lived in household compounds consisting of the residences of related nuclear families centered on a common patio, symbolizing the cellular nature of family (indeed, community) organization. (11)

This historical literature prompts a number of questions regarding the Yucatec Maya family. For example, what was the organizational relationship between nuclear and extended families and between the family and the community? How were kin ties structured? To what extent can Maya families be characterized as strategic economic units? What was the impact of such patterns on marriage practices? What evidence is there that Maya conceptions and formations of family were altered by Spanish colonial economic demands and cultural norms? How do inheritance patterns illuminate these questions? Above all, what were the social elements that provided the cohesion that made family life possible?

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While recognizing that families tend to be too complex, contradictory, and shifting to be easily typecast, (12) my method is to use the empirical evidence (some quantifiable, some anecdotal) of Maya-language sources and census records to focus first on the nature and size of the Maya family, its manifestation in two forms - the household unit and the patronym-group - and the formative and cohesive role played by marriage patterns. Second, I portray the Maya family as an economic corporation, as reflected in work patterns and the material environment of the household.

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As stated above, no term existed in colonial-era Yucatec Maya to denote *family* as we tend to understand the word (the nucleus that appears to have originated primarily in early-modern England). (13) However, the term *chibal* (patronym-group) described an extended family unit determined by paternal descent. Before turning to the patronym-group in detail, I would like to present evidence of a smaller familial unit, the household, which existed within the patronym-group and was given definition by kinship terminology and the nature of the household complex.

In colonial-era written records, the household complex was referred to either in terms of its physical plant (to which I shall return below)- the *solar* (house-plot) and the *na* (house structure)- or in relation to its social role as a home (*otoch*). A resident of a particular community could just as well be called an *otochnal* as she or he could a *cahnal*; in other words, the two terms, one containing the term *cah*, the other the term for home, were interchangeable. Just as the central Mexican Nahuas built multiple dwellings on their house-plots, (14) so might a Maya house-plot contain various structures according to the size of the extended family. My estimate is that the typical Maya house-plot of the mid-eighteenth century contained ten individuals living in two adjacent houses; broader demographic trends in the peninsula suggest that this figure would have been lower from the conquest period through to the early eighteenth century, but somewhat higher from the end of the eighteenth century, through to the outbreak of the Caste War in the 1840s.

This estimate is based on a number of factors. One of Yucatan's first Franciscan friars observed in 1548 that a Maya house typically contained 2 to 6 residents; there were often 2 or 3 houses to a house-plot. The data from the community of Pencuyut of a 1583 population census showed household (i.e., house-plot) numbers of 8 to 11, with average household numbers in the Tizimin area that same year of 9.4. (15) The 1570 census of two communities on Cozumel island (see Table 1) indicates a range of 2 to 8 couples per household, or residential compound (the term used is *otoch*, meaning "home," as distinct from *na*, "house"); the averages of 3.65 and 3.68 suggest total household populations of about 11. References to residency in one late-eighteenth-century collection of wills suggests solar occupancy levels of 6 to 12 people. (16)

Total household estimates depend in part, of course, on estimated number of children. My calculation of a typical household size of 11 for Cozumel in 1570 is based on average numbers of unmarried children per couple of 1.05 and 1.10 for Xamancab and Oycib, respectively; the census listed only unmarried children separately, with married children included in the list of adults by couple, but using patronyms as a guide, the average number of married children for each household head couple can be calculated at 1.05 and 1.09 for the respective communities. Although we can only

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Table 1
Data from the 1570 Census of San Miguel Xamancab(SMX) and Santa Maria de Oycib (SMO), Maya Communities(cahob) on the Island of Cozumel

	Patronym-Group Alliances		Number of Children		
Number of household-Head	Number of Married Households	Couples per Household: Average	Couples Linked by Patronym to Household (range)	Number of Households with Multiple Patronym-Group-Head or Wife	Unmarried: Average per Alliance	Married.-Average per Marriages per Couple
SMX 17	3.65 (2-7)	51%	5	1.05	1.05	
SMO 22	3.68 (2-8)	56%	4	1.10	1.09	

Source, CC; also see Roys, Scholes, and Adams, "Cozumel," 15-22; McAnany, *Living with the Ancestors*, 106-9. The categories in the table are discussed in the text.

Table 2
Number of Children Surviving to a Maya Parent at Parent's Death

Archival Source	Number of Testators	Community of Testators	Time Period of Testaments	Average Number of Surviving Children per Testator
LC	23	Caachen	1646-1656	1.96
LC	3	Cacalchen	1678-1679	2.00
DT	34	Takanto (a)	1726-1757	2.94
TI	46	Ixil	1765-1769	2.98
ANEY/AGN	8	Various (b)	1741-1784	3.50
TE	9	Ebtun	1785-1813	4.99
ANEY	3	Various (c)	1805-1832	4.00

Note: Please see note 1 for a description of each archival source.
a. A breakdown of the Tekanto data shows a marked increase in the second half of the period covered: 1726-1738 (eight testators), average 2.00; 1743-1757 (twenty-six testators), average 3.23. Of course, the thinner source-base for the first half makes that figure less reliable.
b. Bokoba, Chicxulub, Motul (all in the La Costa district immediately northeast of Merida), Itzimna, Santago Tiho (both in the Merida district, the latter a barrio of the city), and Homun (in Beneficios Bajos, immediately south of La Costa).
c. Sicpach (La Costa), Hunucma (Camino Real Bajo, immediately west of Merida). Note that Cacalchen, Ixil, and Tekanto are all in La Costa, while Ebtun is in the western end of Valladolid's district; thus, all twelve *cahob* cited in this table are located in the northwest heartland of the colony.

tentatively add these two numbers together, (17) these figures suggest 2 children per couple as a reasonable estimate.

Evidence from testaments shows that the number of children still alive shortly before the death of one of the parents was typically two in the mid - to late seventeenth century, three a century after that, and four at the end of the colonial period (see Table 2). These figures only give us some sense of household numbers, although presumably the fact that not all children named in wills lived on a single house-plot is somewhat balanced by the fact that other children died before a parent dictated a will. Tha surviving children were a mere proportion of total births is suggested by the remark of one Ebtun woman dying in 1785 that "my children are not many; there are four of 70

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Table 3
Age Distribution (by percentage) of Maya Population in Selected Communities

	Community				
	Ebtun				San
	Marcos (a)	Cacalchen	Tekanto	Valladolid	
Year	1811	1810	1811	1810	1811
Population	1,624	2,360	2,833	44,313	188
Age b					
1-7 (b)	30.3	14.6	29.5	26.8	24.5
7-16	20.2	16.7	17.0	23.8	13.9
16-25	13.9	18.2	21.1	13.7	17.3
25-40	15.9	27.0	12.6	17.6	24.5
40-50	11.7	12.3	11.4	11.4	11.6
50 and older	8.0	11.0	8.4	6.8	8.3

Source: AGEY *Censos y padrones* (colonial) 2, 4: 1, 5,17; 2, 8: 11,12,23,24. Note that Farriss, *Maya Society*, 466, n. 15, comments that parish censuses from this period of six communities (including Tekanto) show 18 percent to 19 percent of the population older than fifty, but I have not been able to compare her sources in the AA directly with the civil census used here.

a. San Marcos is a Maya suburb (a *cah-barrio*) of Valladolid (which the Mayas called Saci).

b. These age categories follow those of the original census, which unfortunately offers neither an alternative breakdown nor an explanation as to whether, for example, seven-year-olds are counted in the 1-7 category, the 7-16 category, or both.

them"; (18) if four, the average number of surviving children, was not considered many, then it must have been common for others to be born and predecease their parents. The mid- to late-colonial increase in the number of surviving children (see Table 2) may reflect a decline in infant mortality, an increase in fertility rates, greater life expectancy, or a combination of all these factors, although at the end of the colonial period, the age distributions in communities (see Table 3 and Figure 1) suggest that fertility rates were still unstable and/or infant and child mortality remained significant." (19)

The increase in family sizes between these time periods suggested by Maya wills is supported by general demographic estimates, which show the indigenous population of the colony of Yucatan falling from something more than two million at contact to fewer than a quarter of a million around 1550, a level not regained until the end of the eighteenth century. In the intervening years, the low point was an estimated 100,000 in 1688, with shallow, stalled, recoveries in the early seventeenth and turn of the eighteenth century, and a sustained climb in numbers from the late eighteenth century to a zenith of 390,000 in the final year of colonial rule. (20)

The approximately ten family members living on one house-plot typically consisted of related series of nuclei making up an extended grandfamily, for example, a couple and their children, possibly one or more of their parents, a sibling couple with their children, and possibly additional siblings of one or another generation. As Table 3 (and Figure 1) shows, Mayas could live into their fifties (and, as wills occasionally reveal, into their sixties), long enough to see the household become a four-generation unit.

This was made more possible by the drop, early in the colonial period, of typical marriage ages into the mid-teens for both sexes, at least according to Diego de Landa, head of the Franciscans and later bishop in Yucatan. (21) Either this was wishful thinking on the part of fray Landa (for reasons discussed below), or marriage ages shifted up

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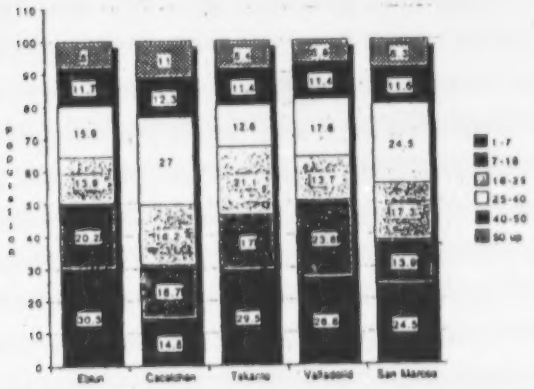

Figure 1. Visual Representation of Table 3
Note: Please see source information and notes to Table 3.

during the colonial period, for census evidence of 1810-1811 shows most (in Tekanto, all) marriages took place in the couples' late teens or early twenties (see Table 4).[11] Generally speaking, marriage ages rose in Spain and, to a lesser degree, in Mexico, during the seventeenth and eighteenth centuries,[12] and Yucatán may thus have been party to the same pattern.

Marriages tended to be, but were not always, patrilocal; sixteenth-century Spanish commentators remarked that newlywed couples lived with or adjacent to fathers and fathers-in-law, sometimes so that a man could fulfill a labor obligation to his father-in-law for five or six years.[13] Testaments and other notarial sources do not contain reliable data on this question, and when it is clear that a couple resides either in his or her parents' household, there is no apparent pattern as to how the choice was made, suggesting individual decisions were made based on a variety of possible factors, such as personal relationships and the availability of residential space. The relationship between household size and wealth would suggest that class factors played a role, with more privileged parents able to create multiplot households comprising the nuclear families of sons-in-law as well as of sons.[14] References in Maya wills to married children living on the same (or an adjacent) house-plot show that Spanish clerical

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Table 4

Percentage of Men and Women in Each Age Category in Selected Communities Who Were Married or Widowed at the Time of the 1810-1811 Census

	Community			
	Ebtun Average	Cacalchen (a)	Takanto	Valladolid-Saci (b)
Age 7-16				
Men	17.0	4.4	0	28.3
12.4				
Women	14.2	4.4	0	27.3
11.5				
Age 16-25				
Men	84.7	53.5	89.8	72.0
75.0				
Women	80.9	51.8	91.5	69.2
73.4				
25 and older				
Men	99.3	35.3	100	94.2
82.2				
Women	98.3	38.2	100	92.3
82.2				

Source: Same as Table 3. Age categories follow original census. Note that the percentages given are for each age category and each community, not for total populations on either axis; for example, of all the men in Ebtun age seven to sixteen in 1810-1811, 17 percent were married or widowed.

a. The relatively low marriage rate in Cacalchen, especially for those twenty-five and older, would seem to correlate with the unusually low percentage of infants in the community (see Table 3 and Figure 1). However, the severity of the contrast raises questions as to the consistency of data collection by census officials. In studying the 1811 census of the viceregal capital, Arrom (*Women of Mexico City*, 112-13) discovered that couples living together were counted as married; perhaps this was not done in Cacalchen in 1810, but was in Ebtun and Tekanto, which were not counted until 1811. This of course would mean large numbers of older unwed couples. Another possible explanation is that in Cacalchen, widows and widowers were accidentally counted as single.

b. These figures are for the entire population of the town, 75 percent of which was Maya ('indios') according to this same census. There is thus a significant margin of error in this entry.

requirements that married couples establish their own nuclear homes were not effectively enforced (a topic to which I shall return below).

The inclusion in the household of lateral and affinal kin is reflected in elements of bifurcation in Yucatec Maya kinship terminology, particularly bifurcation by gender (the sex of the linking relative being the crucial determinant) and by generation (effectively grouping kin of the same generation together). (26) For example, *yum*, "father," was also used for a paternal uncle, and *mehen*, "son," could also refer to a nephew and a son-in-law; a separate term was then used for a maternal uncle (*acan*). However, as far as can be told from testamentary evidence, such usage tended to be restricted to individuals who were household residents; those living on separate, especially noncontiguous, house-plots were more often described with distinct kin terms (such as *achak* for "nephew"). Thus, familial demarcations were determined as much by household residency as by relational details that might otherwise have separated kin into nuclear units. In fact, some household residents may have been distant kin and/or subordinates working for the household head or dominant residents; census and testamentary evidence reveals the occasional resident or residents who cannot be clearly linked patronymically to the rest of the household. (27)

Two other factors mitigated the use of bifurcated terms. First, there were clearly variations in kinship terms between different communities. For example, a wife in Ixil

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was *atan*, in Tekanto *chuplil*; a man's granddaughter was *chich* in Cacalchen, but *idzin* or *mam* in Ixil, whereas in Tekanto *mam* was a cross cousin and *idzin* a younger sibling or parallel cousin; note that Cacalchen, Ixil, and Tekanto are all located near to each other in the region to the northeast of the colonial (and now state) capital of Merida. These variations were paralleled by other minor intercommunity differences in terms selected or how they were pronounced (the terminology, for example, of animal husbandry). Second, the only apparent impact of Spanish kin term usage on Maya practices was the late-colonial use by Mayas of terms that modified the bifurcation of indigenous terminology: *tio/tia*, "uncle/aunt," and *sobrino*, "nephew" (I have not seen instances of *sobrina*, but it was presumably also used); this suggests a modest late-colonial Spanish influence on Maya conceptions of family and kin relations. (28)

If Maya kinship terminology sometimes de-emphasized the distinction between lateral kin, such as cousins, (29) at the same time it underscored differences in age and gender; lateral-kin de-emphasis was not simply between any cousins, but between cousins of the same sex, and additional or substitute terms could be used to denote whether one's cousin (or sibling) was older or younger than oneself. There are important hints here as to the nature of interpersonal household relations. Maya society was characterized by multiple hierarchies with accompanying expectations of deference and respect offered in return for protection of various sorts. The political structure of community self-rule was a macrocosm of household hierarchy, with each community governed by a senior male (the *batab*) and below him a municipal council (*cabildo*) made up of other senior males often referred to, among their various individual and collective titles, as "the elders." (30)

This conceptual relationship between generational difference and political authority is reflected in the Maya use of *yum*, "father," to mean "lord"; this term is ubiquitous in Maya petitions to colonial authorities, which tend to make much use of rhetorical, reverential language to portray Maya subjects as the obedient and respectful children of their Spanish paternal lords. (31) The use by a Maya man of *yum* to refer to his uncle thus not only reflects the fact that generation was more important than immediate paternity, but also has additional respectful overtones. The expectations of the parental generation are indicated in personal comments by testators on the success or failure of certain children to live up to these standards ("he remembered me in this world," for example, or "she did nothing on my behalf,) (32) comments that were used to justify the inheritance or lack thereof granted to a child. Generational hostility, especially father-son conflict over land, is perhaps to be expected, (33) in which case, it is striking how few instances there are in the written record of such disputes, suggesting that the pressures of generational deference were powerful and that the mechanisms of conflict resolution within household and community were effective. (34)

The patriarchal implications of the use and meaning of terms such as *yum* (lord, father) are supported not only by the use of many different kinship terms by men and women but also by the tendency of that terminology to indicate the sex of a man's children (*mehen*, "son," and *ixmehen*, "daughter") but not that of a woman's (*al*, "child," although *al* could be modified or substituted by *xib*, "boy," or *chuplal*, "girl"). (35) This pattern was not unique to the Yucatec Maya; the Cakchiquels made the same distinctions in their kinship terminology, also employing bifurcated terms and marking age and gender differences. (36)

Bifurcation usually indicates that descent is being traced unilineally, that is, matrilineally for women and patrilineally for men. (37) Indeed, the preconquest Yucatec

naming system consisted of a child receiving his or her mother's matronym and his or her father's patronym (prefixes denoted gender so that male and female children were not named identically; same-sex siblings were distinguished by nicknames). However, after the conquest, the matronym system was dropped in favor of given Christian names, while the patronym system was retained (this hybrid system is still in use today, altered since colonial times only by the addition of maternal patronyms, in imitation of Spanish practice). This shift from a unilineal to a patrilineal naming system helps explain why the few Spanish kin terms adopted by the Mayas offset tendencies toward bifurcation in Maya kinship terminology. (38)

In Maya families, Christian names were as varied for women as for men, and every family member would have been named after an ancestor, most likely a parent or a grandparent; for example, Luisa Noh of Ebtun named one daughter after herself and the other after her mother, Maria. Gender posed no problem, for either the most popular names had simple counterparts (Francisco/Francisca, Pasqual/Pasquala, Bernardino/Bernardina, Juan/Juana), or one could be invented (Pablo/Pabla). As in preconquest times, nicknames or abbreviations of Christian names helped distinguish between namesake family members, while the late-colonial vogue for double Christian names enabled a Juan to name his sons Juan Pablo, Juan Clemente, and so on. (39)

While Christian naming patterns were similar for men and women, the postconquest patriarchal shift in surname patterns was marked not only by the dropping of the maternal matronyms, as discussed above, but by the persisting importance of the patronym system; the patronym-group (*chibal*) was, aside from the community (*cah*), the most important organizational unit in Maya society, acting as a primary determinant of social, political, and economic subdivision within the community, but also to some extent functioning across community boundaries. The term *chibal* itself was rarely used; the Mayas preferred to name the patronym-group in question, usually in the collective form *ah* [x]*-ob* ("those of the patronym-group named [x]"). (40) I have noted about 270 patronym-groups in the colonial record, represented in documentation that has survived from almost all of the approximately 200 Maya communities in the province.

Patronym-group affiliation was central to the identity nexus of the Yucatec Maya. It carried associations of status and territory with respect both to the broader structures of class and community and to household-specific patterns of residency and land tenure. One expression of how the extended family household represented the intersection of lineage and location was the strong connection that household and patronym-group members felt through land to ancestors and descendants. It was common for a Maya testator, when bequeathing a residential or farming plot, to name the ancestors from whom that land had been passed down and also to emphasize its connection to subsequent generations; the term *kilacabob* was often used for both "ancestors" and "descendents," as in the example of Felipe Noh of Homun, who left six plots of land to his heirs in 1763. (41) They included,

> one well, named Ticheb, where my plantain orchard is, which I leave in the hands of my wife; this well was not purchased, but has come down from the ancestors. There is also one forested plot (42) at Ticheb that I leave in the hands of my sons and all their descendants. Whoever is born of the ancestry of the Noh people will successively support themselves with it in the future. Its possession is arranged well; no one shall take it from them. There is also another forested plot in Kochola, which I leave in the

hands of my sons and all their descendants, by which they will support themselves. The possession
of this forest was well arranged in the will of my father, don Matias Noh, who died some time ago.

This sense of patronym-group identity deeply rooted in time and territory was more common the higher up the community social structure; the Noh were clearly among the better-off patronym-groups in Homun, as evidenced not only by Felipe's property, but by the don title held by his father, an honorific that the Yucatec Mayas reserved for community governors (*batabob*), ex-governors, and *indios hidalgos* (an elite Spanish-created class within the nobility). Indeed, by no means were all patronyms socially equal. Some patronym-groups were noble or dynastic and thus more likely to have a sense of cross-community identity (the best examples are the Pech and the Xiu); (43) the status and spread of most was limited by region, if not community. Some were rare, others common, with a general pattern of limited diffusion, which is explained in part by community endogamy (particularly important in view of patronym-group exogamy, a subject to which I shall return).

Community endogamy is suggested by testamentary evidence from Ixil, where every single one of sixty-eight couples living in the early eighteenth century represented community-endogamous marriages (sixty-six of them, or 97 percent, were natives of Ixil, the remaining two couples having married fellow community members elsewhere and subsequently moving to Ixil). (44) This data contrasts somewhat with evidence from a tribute census of 1721 and that of late-colonial parish registers. The 1721 census shows that eighteen of twenty-one communities in one region of the province contained residents born in another community, although they were a definite minority (of these twenty-one communities, half contained between zero and 12 percent of adults born in another community, and the rest had up to 32 percent normative adults, with one community showing a figure of 57 percent). (45) Parish records show that while community exogamy was substantial in certain communities, it was neither a widespread nor a random phenomenon, nor did it represent a gradual migration from small communities, to regional centers, to Merida; rather, it was restricted to certain communities that maintained strong ties with a small number of other communities (Sotuta with Teabo and Tiho, for example, and Tecoh, Ticul, and Homun with one particular community within Tiho, San Sebastian). (46) I would argue, therefore, that while data on migration and marriage reveals a wide range of individual community variants, community endogamy was the norm; in the vast majority of communities, the majority of the population married fellow residents, while a minority was subject to migration and marriage patterns that were usually community distinct. (47)

The clustering of patronym-groups also suggests that they may have been cognatic, in the sense that patronym-group members may have descended from a common ancestor, as Diego de Landa claimed, (48) or at least have once adopted the name of a community leader or dynasty, as may have been Quiche Maya practice. (49) Furthermore, patronym-group concentrations are especially noteworthy with respect to elite families or dynasties, many of whom were clustered in areas named after them in preconquest times and in communitieb that they dominated and ruled before and often during the colonial period. The Cochuah, for example, were still confined at the end of the seventeenth century to an area around Tihosuco that had been named after the patronym-group before the conquest, and in the late-colonial period, the Pech continued to dominate communities in the La Costa region that had once been called Ceh

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Pech. Likewise, the Xiu remained concentrated in colonial times in the southern portion of the province where they had ruled before Spaniards arrived and where they continued to control many community governments. Another noble patronym-group, the Cupul, was largely confined to the east. (50)

Patronym-group clustering meant that a small proportion of the total number of patronyms were represented in any given community. Although sources such as testaments and land sale records are not as ideal for this type of analysis as census data might be, it is still worth noting that they suggest that in the eighteenth century in both a small community such as Ebtun (fewer than a thousand inhabitants) and in larger communities such as Ixil and Tekanto (one to two thousand), about 12 percent of all patronyms in the province appear. In the five communities that were the suburbs of Merida (the city and its indigenous communities were known to the Maya as Tiho), this figure rises to 28 percent for the late eighteenth century, reflecting Maya migration into the colonial capital. (51) Thus, a typical family living in a modest-size community would be familiar with thirty to forty local patronyms-and would also be related to half a dozen or more of them.

As patronym-groups were exogamous, (52) the family members on a typical house-plot would not all hold the same patronym; women retained their patronyms after marriage, although children took their fathers' surnames. As children married and some stayed on the house-plot, more patronym-groups would become represented in the household complex. The multipatronym nature of the household might suggest that the latter was more important than patronym-group organization, and that no doubt would have been the case had love's whimsical nature been the sole factor in marriage choice. However, where the documentary sources are dense enough, visible patronym-related patterns reveal the organizational significance of marriage decisions.

For example, the 1570 Cozumel census and the collections of wills from seventeenth-century Cacalchen and eighteenth-century Ixil show that families tended to form alliance groups of, typically, four or five coresident patronym-groups of similar socioeconomic standing in the community. (53) The class structure of patronym-groups within a community can be compiled using testamentary information, such as titles of nobility and social deference, access to political office, land holdings, and general wealth. In Ixil in the 1760s, for example, there were forty patronym-groups (as recorded in testaments) that can be placed into eight socioeconomic levels; at the top, the circle of marital alliances tightens (eleven patronym-groups comprise four levels of nobility), and at the bottom, it widens considerably, although practices designed to tighten the circle, while still conforming to patronym-group exogamy-such as preferential bilateral cross-cousin marriage (54) -remain in evidence.

One such alliance existed in Ixil between families representing the Cante, Coba, and Yam (level 3) and the Couoh and Matu (level 5). Of two siblings, Pasquala Matu and Juan Bautista Matu, born around the turn of the eighteenth century, Pasquala married a Cante, and they had a daughter who married another Matu, whose mother had been a Couoh; meanwhile, Juan Bautista married a Coba, and one of their daughters married a Yam, and of their children, two married Coba and one married a Couoh. From the perspective of the two Matu siblings, their descendants had married equally or upwardly, and their grandchildren's inheritance was certainly above average for the Ixil of the 1760s. Likewise, the four most prestigious patronyms in Cacalchen- Cocom, Couoh, Pech, and Uitz- all come together in the 1647 will of Cecilia Couoh; she married a Cocom, her sister married a Pech, and one of her daughters married a

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Uitz. Going back further still, there is evidence of patronym-group alliances on sixteenth-century Cozumel (see Table 1), especially in the community of Xamancab between the Cab, Mah, Pat, and Puc. The Pat-Cab alliance extended to the community of Oycib; in both communities together in 1570, there was a total of eight Pat-Cab Couples. (55)

These marriages did not simply represent single alliances between households made possible by the woman's dowry (Maya women were sometimes given property to bring into marriage) but were complex interweavings of families over generations in which relatively small class differences were perpetuated, group identities were nurtured, and women almost as much as men claimed, developed, and made use of a variety of property. The patriarchy of the Maya family, and Maya society as a whole, was indeed reflected not only in naming patterns as discussed above, and in political structures (women held no offices or titled positions of authority and thus had no official access to literacy), but also in the ownership of the most valued type of property in the community, land; yet women did have important roles to play in the use and exchange of property, roles that had a direct bearing on the household and its cohesion. (56)

We have seen that Maya society was asymmetrical in various ways, according to differences of generation, class, patronym-group membership, and gender, with social organizations at all levels represented by a dominant male - from the governor of the community, to the patronym-group patriarch, to the household head. That such inequalities existed not just within the community but within the extended family did not mean the cohesion of the extended household complex was thereby compromised. On the contrary, asymmetrical residential relations were central to the economic and productive function of the family. (57)

MATERIAL TIES

The Maya household complex was a diversified economic corporation. (58) The historical literature on indigenous economic activity has tended to focus on the community as a corporation and to make a distinction between capitalist activity and a peasant subsistence economy. (59) This distinction, however, is not a useful tool for analyzing the Maya economies of community and household, which were geared toward both subsistence production and the generation of surplus and profit (to meet tribute and other demands as well as to invest in economic enterprise and to fund ritual activities). (60) Within the economic culture of the Maya community and family, capitalist and subsistence economies were not separate modes of production, but complementary sets of principles.

Christine Kray, in an ethnographic study of the contemporary Maya community of Dzitnup, argues that these two sets of principles are combined in various ways by Maya producers and that this interactive model is more appropriate to modern Yucatan than are other models (such as Marx's evolutionary model in which capitalism wipes out subsistence modes of production, Wolf's model of reaction whereby subsistence becomes defensively entrenched in closed corporate communities, or the Tax model of peasants operating on capitalist principles without actually accumulating capital). (61) I suggest that the interactive model is also appropriate to the colonial period.

Although the extreme poverty of many commoners in Maya communities and the punitive effect of colonial taxation often limited Maya family access to greater

productive means, capitalism was clearly a part of colonial Maya culture, as shown by the existence of informal bankers in some communities; by the generation of cash profits bequeathed to children by individuals, paid as tribute dues by Maya community councils (cabildos) or reinvested in community cattle ranches; by the ability of elite families to develop considerable and diverse wealth relative to their fellow community members; and by the domination of the production of certain commodities by one or a few patronym-groups within a given community. (62) This is not to say that Maya society was capitalist in an unqualified sense. Robert Patch has argued that Latin America's "colonial *economy* may have had elements of capitalism, [but] colonial society did not; or at least it had very few." (63) The same might be said of the Maya community or cah; balancing the above evidence of capitalist activity is the lack of evidence of wage payment within the community, even though community members sought wage labor from local Spanish employers to supplement (or, especially in the late-colonial period, substitute for) other forms of family income and subsistence. (64)

A key element of this complex economic mode was diversification, which served not only to meet Spanish demands for cloth and wax products while at the same time feeding family members, but also enriched the sharing and exchange of goods within the household complex. Testaments from mid- to late-colonial Cacalchen, Ebtun, Ixil, and Tekanto featured as bequeathed property seventeen different types of trees and plants, twenty-one different kinds of animals, a dozen types of furniture items, twenty-one separate kinds of tools, nine kinds of clothing, and more than a dozen other items of value. This is not to say that all Maya families lived in a richly diverse material environment; the above list is culled from hundreds of wills over many generations from four communities, where no one household came close to owning all these kinds of goods and most owned very few indeed. Furthermore, a closer look at these items shows a certain uniformity; most homes contained but a few pieces of wooden furniture limited overwhelmingly to beds, tables, benches or stools, and chests for storing clothing (differentiated only by gender) and other valuables (mostly coins, crockery, necklaces and earrings, and rosaries and saint images). Nevertheless, there was a socioeconomic basis to class differences within the community; because each community had limited access to land and other bases of wealth, the relative poverty of most Mayas facilitated rather than prevented elite families from engaging in diverse economic activity, producing a surplus, accumulating capital, and acquiring varied material property.

Material diversity was reflected in economic activity both on family house-plots within the residential part of the community and on the outlying cultivated lands that constituted the territorial part of the community and were worked exclusively by men. (65) Thus, tools (and the patterns of their ownership and inheritance) reflected the varied requirements of maize farming, arboriculture, herb and vegetable growing, water extraction, weaving, apiculture, cattle rearing, horse keeping, and other kinds of animal husbandry. As a general rule, activity away from the house-plot (clearing forested land, marking boundaries, planting and harvesting maize, tending to distant orchards, traveling to trade items in other communities or Spanish centers) was a male preserve, whereas women dominated house-plot activities (growing food; keeping pigs, turkeys, and chickens; and weaving, with men tending to be involved in beekeeping and the cultivation of fruit trees only if family holdings were large). (66) Correspondingly, women were far more likely to own house-plots, and men to own

forested or cultivated land, although during the lifetime of the "owner," both types of land were used by, and benefited, the entire household. (67)

Typically, therefore, in a Maya family, the division of labor by gender would have separated men and women from each other for much of the day (sometimes days at a time). Their respective activities can be further illustrated by the examples of an actual household. Six Cutz siblings of Motul inherited shares of property from their father, Juan, in 1762. Andres took possession of a house-plot with a well and palm trees on the stony ground out back (once his paternal grandfather's land), as well as goods that had come down from his grandmother and might ultimately go to Andres' future wife and/or daughters (a mare, a chest, and a silver spoon). Juan still lived on this plot with his children at the time of his death, and he seems to have expected that Andres would remain on the plot with his future nuclear family but that the well and palm trees (used for roofing material) should benefit all his descendants. Meanwhile, second son Josef and his four sisters would in time settle on three adjacent house-plots on the edge of the community, forming a satellite household of clustered nuclear families - Josef to move when he had children of his own, Luisa and Josefa to move to their joint plot when they were old enough to spin thread and weave, and likewise, Rosa and Antonia to their joint plot. Just as the daughters were expected to live and work together in the cottage textile industry that was pervasive in colonial Yucatan (68) so were the sons expected to work together on four plots of corn fields located outside the residential part of the community, fields of which they were the joint owners as household representatives. Thus, together, through their respective enterprises, the Cutz men and women would maintain their households and their patronym-group. (69)

I suggested earlier that Spanish clergy did not succeed in dividing up households into nuclear families upon the marriage of a child, despite the fact that Farriss has argued that "residential division, perhaps the colonial innovation most destructive to the corporate system, was imposed by the Catholic clergy." (70) Certainly, Spanish officials throughout New Spain were keen to see indigenous parishioners marry early and create separate households, ostensibly for moral reasons, although fiscal motives were clearly also paramount. How successful the clergy were is one question; another is how well the appearance of separate nuclear households correlated with the realities of indigenous social organization and economic activity. Parish censuses often give the impression of high numbers of small nuclear households, and yet ecclesiastical officials continued to push for their creation as though it had yet to be realized. (71)

For Yucatan, the issue is complicated by the layout of house-plots in the community, as reflected in the clustered house-plots of the Cutz of Motul. At some point in the early colonial period, any given community (cah) took on a parallel identity as an indigenous pueblo in the structure of colonial administration. As its community elders became the new municipal council, or cabildo, so did its patchwork of clustered houses become municipal blocks, each ideally containing four solares, or house-plots. In theory, these were uniform and distinct units. In practice, as revealed by records of property sales, the Mayas divided up house-plots or treated contiguous plots as one so that what might have officially been nuclear families living on separate house-plots were really multiple-residence extended-family household complexes. (72) Not only have such patterns of residential clustering survived to the present in much of Mexico, (73) but they have been observed by archaeologists for a number of pre-Columbian Maya sites - most notably Coba, Dzibilchaltun, K'axob, Mayapan, and Tikal. (74)

Patronym-based marriage alliances and the resulting growth of extended families sometimes resulted in the eventual splitting of a household into two, each on neighboring halves of a house-plot (see Figure 2), halves that might be reunited either by an outside purchaser or by one patronym-group later consolidating house-plot holdings; wills and bills of sale often recorded the transfer of "shares" and "portions," as plots became further divided (see Figure 3). (75) Boundaries between colonial blocks and plots were supposed to be marked by roads and walls, but their construction was a slow process, and the Maya tendency was to continue to delineate boundaries with the traditional stone-mounds (sometimes in lines that approximate walls but often simply marking corners; even today, many roads are unpaved in Maya communities and many
plot walls are token or nonexistent). (76) Thus, a typical grandfamily household might occupy adjacent house-plots and its members frequent the neighboring plots of related households of the same patronym-group or alliance of patronym-groups.

The free movement of family members and animals between plots symbolized the blurred lines between separate and joint. (77) Indeed, a complex relationship between separate and joint generally characterized Maya principles and practices of property ownership, as reflected in inheritance patterns. From at least the mid-seventeenth century, movable goods were bequeathed evenly to spouses and children, largely according to the gender-specificity of items; this principle of even distribution was termed *cetil*. The numbers of particular items owned by an individual and his or her surviving children did not always correlate, however, and thus some property, most notably land, could not be easily divided. To avoid cutting up parcels of land while still recognizing cetil requirements, Mayas made use of the parallel principle of mutual, "joint ownership." Typically then, a plot of land was placed in the hands of a representative of the household or, in the cases of large cultivated plots, the patronym-group. Nominal owners of forested or farming land were almost always male, but women often appeared as invested parties at the ritual recording of a plot sale, and women could inherit and sell residential land as household representatives; when siblings of the Cutis patronym-group, three male and two female, gathered before the community council of Ebtun to sell a house-plot, it was Luisa who represented the household as the eldest of the five. (78) Widows sometimes held farming land but were more likely to have inherited house-plots and animals, with farming plots going under the names of male representatives even if widows were sustained in part from the produce of those plots; where women did inherit such land, they tended to sell it during their lifetimes rather than wait to bequeath it. (79)

Because those household members who lived on or from a plot of land were in some sense considered its joint owners, family members effectively held shares in such property, which they then left to successive generations. For example, Viviana Canche of Ixil had inherited from her father his part in the household plot, which was, by the time of Viviana's death in 1766, also owned jointly by her husband, son, uncle, older brothers, and younger siblings; she left her share to her husband and son, which had the effect of confirming her nuclear family's interest in the house-plot without bringing in any additional members. The plot had three wells on it, possibly each one pertaining to separate structures for the nuclear families that made up the household; note, however, that individual structures or wells are not specified in a bequest such as this, for that might have jeopardized both multial (joint ownership; the joint plot might then fragment into separate nuclear plots) and cetil (even distribution; shares in a plot can more easily be seen as even or equal when not tied to physical portions of it). (80)

Figure 2. A House-Plot in Santa Ana Tihó (a community that was a suburb to Mérida-Tihó, i.e., a cah-bamo); House-Plot Divided into Two, with Maya-Style Houses on Eastern Street Side and a Central Wall with Outside Access Path from the South; Plot Owners Probably Mestizos (ANEY 1828, n.f.; map of 1819)

The persistence of large households, with a continued emphasis on the identity and function of the extended family rather than its constituent nuclear subunits, was not simply a case of cultural reactionism by the Maya. It was also a response to economic realities. If the "labor demands of agrarian production select for large household size,"

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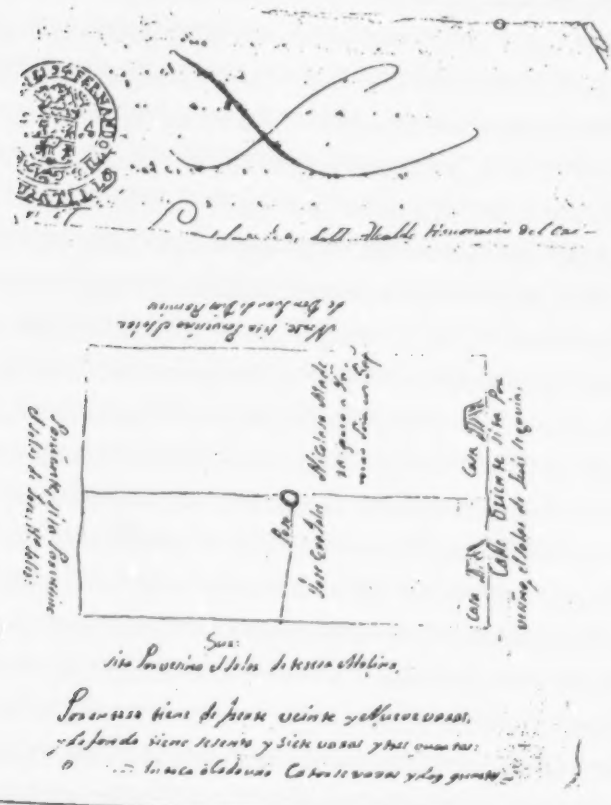

Figure 3. A House-Plot in Santiago Tinó (another *cah-barno*); Plot has Multiple Divisions and Maya Owners (ANEY 1825ii, 74; map c. 1810).

as McAnany has argued with respect to the pre-Columbian Mayas,[81] then the colonial period, with its increased demands of labor and taxation on a population struggling to recover from demographic collapse, surely made larger households even more efficacious. Thus, despite the efforts of colonial authorities, colonial rule may have, through adversity, fortified the extended family as a diversified economic corporation.

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CONCLUSION: COHESION AND IDENTITY

There was thus an ambiguity to the way in which Mayas conceived of the relationship between family and residential location - their use of house-plot land as divided yet integral (as with the Canche of Ixil example), or separate yet contiguous (as with the Cutz of Motul example). This treatment of space suited the Maya perception of family as fundamentally extended, with nuclear units seen only as subunits of extended families, themselves multilateral subunits of patronym-groups (chibalob), which in turn were subunits of the community (cah). Without suggesting that the ambiguities of clustered settlement represented a deliberate strategy of Maya resistance, it is clear that the practice partially and deceptively satisfied Spanish concerns over indigenous residential patterns; separate structures on theoretically separate plots sufficiently conformed to Spanish notions of what constituted a nuclear household, while Spanish officials were presumably unaware of the significance to the Mayas of the adjacent siting and group usage of those plots.

In the long run - specially in the final decades of the colonial period in the Maya communities that became suburbs of Merida - Hispanic state and cultural pressures may have shifted the emphasis within the Maya extended family away from the aggregate and toward the nuclear. But I do not see sufficient evidence that during the colonial period "nuclear families rose to a privileged position over the multifamily units that were preeminent prior to the conquest," as Susan Kellogg has argued for the Mexica (the Nahuas of Mexico City) and as has been suggested for the Yucatec Mayas. (82) Indeed, one might expect a Maya-Mexica contrast, in that the Nahuas lacked a patronym-based system of social organization comparable to that of the Maya patronym-group. Furthermore, the Mexica municipal community (their altepetl) was subsumed within (and almost consumed by) Mexico City, where Spaniards were more concentrated than anywhere else in Mesoamerica, (83) whereas those rural indigenous communities of Yucatan that survived the conquest period reconstituted and consolidated themselves as largely homogeneous and semiautonomous political, economic, and social units - with the extended family strengthened, rather than undermined, by the colonial experience.

Maya family members, then, were tied to each other in five fundamental ways: first, by coresidency on a house-plot or residency on a cluster of plots, and second, by the legal and formal recognition of family membership via principles of joint ownership recorded on paper, kept in the community archives and reconfirmed with the passing of each family member. Third, co-ownership was daily reinforced by coparticipation - partially modified by gender roles - in the business of household labor, using shared property, produce, access to well water, and tools. Fourth and fifth, these material ties were themselves underpinned by an ideology of identity that gave Mayas a sense of membership in two social groups - the patronym-group (chibal) and the municipal community (cab), the former a microcosm of the latter with respect to the structure and function of patriarchal representation. For Maya family members, these social groups were expressed and conceived in highly localized terms - those of their patronym-group as represented by their household or network of households in their particular community. McAnany has argued that among the ancient Maya, "ancestors [came] to symbolize the coalescence of lineage and locale." (84) For the Mayas of colonial Yucatan, the family form was the product of that coalescence, of the cohesive meeting of cah and chibal. 84

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NOTES

1. The following abbreviations are used for archival and primary material: Archivo del Arzobispado, Merida, Yucatan (AA); Archivo General del Estado de Yucatan, Merida (AGEY); Archivo General de Indias, Seville, Spain (AGI); Archivo General de la Nacion, Mexico City (AGN): Archivo Notarial del Estado de Yucatan, Merida (ANEY) (note that cited volume numbers are not document dates); Biblioteca Nacional de Mexico-Fondo Franciscano, Mexico City (BNM-FF); The Cozumel Census of 1570 (CC), published in Ralph L. Roys, France V. Scholes, and Eleanor B. Adams, "Report and Census of the Indians of Cozumel, 1570," in *Contributions to American Anthropology and History* 30 (1940): 4-30; The Documents of Tekanto (DT) in ANEY (uncatalogued; I thank Victoria Bricker and Philip Thompson for granting me access to copies of DT); Libro de Cacalchen (LC) in the Rare Manuscript Collection, Latin American Library, Tulane University, New Orleans (T-LAL); Title (also Chronicle, Codex) of Calkini (TC) published as Alfredo Barrera Vasquez, *Codice de Calkini* (Campeche, Yucatan: Biblioteca Campechana, 1957) and in Matthew Restall, *Maya Conquistador* (Boston: Beacon Press, 1998); Title (also Chronicle, Codex) of Chicxulub (TCh) pub- lished as Daniel Brinton, *The Maya Chronicles* (Philadelphia, 1882) and in Restall, *Maya Conquistador* Titles of Ebtun (TE) published as Ralph L. Roys, *The Titles of Ebtun* (Washington, DC: Carnegie Institution, 1939); Testaments of Ixil (TI) published as Matthew Restall, *Life and Death in a Maya Community: The Ixil Testaments of the 1760s* (Lancaster, CA: Labyrinthos, 1995); Tierras de Tabi (TT) in T-LAL; Titles of the Xiu (TX) in T-LAL; Title (also Chronicle) of Yaxkukul (TY) in T-LAL and published in Restall, *Maya Conquistador*.

2. These sources are discussed in Matthew Restall, " 'The Document Shall Be Seen': Yucatec Maya Literacy," in *"Chipping Away on Earth": Prehispanic and Colonial Nahua Studies in Honor of Arthur J. O. Anderson and Charles E. Dibble*, ed. Eloise Quinones-Keber (Lancaster, CA: Labyrinthos, 1995), 119-30; idem, "Heirs to the Hieroglyphs: Indigenous Writing in Colonial Mesoamerica," in *The Americas* 54, no. 2 (1997): 239-67; and idem, *The Maya World: Yucatec Culture and Society, 1550-1850* (Stanford: Stanford University Press, 1997), chaps. 18-22.

3. Nancy M. Farriss, *Maya Society under Colonial Rule: The Collective Enterprise of Survival* (Princeton: Princeton University Press, 1984), 133.

4. For a book-length study of Maya society in the *cah*, which includes extended definition and discussion of these terms, see Restall, *The Maya World*. For the sake of readability, I often refer in this article to *cah* as "community" and to *chibal* as "patronym-group," but the reader should be aware that no English word fully conveys the meaning of the Maya terms. This article uses colonial, not modern, orthography for Maya terms (with the exception of the letter *dz*, which is the modem rendering of a colonial letter resembling a backwards c),

5. Farriss, *Maya Society*, 137.

6. John K. Chance, *Race and Class in Colonial Oaxaca* (Stanford: Stanford University Press, 1978); John Kicza, *Colonial Entrepreneurs* (Albuquerque: University of New Mexico Press, 1983); Ida Altman, *Emigrants and Society: Extremadura and America in the Sixteenth Century* (Berkeley: University of California Press, 1989), 228-45; Lourdes Villafuerte Garcia, "El matrimonio como punto de partida para la formacion de la famifia, ciudad de Mexico, siglo XVII," in *Familias Novohispanas: Siglos XVI al XIX*, ed. Pilar Gonzalbo Aizpuru (Mexico City:

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El Colegio de Mexico, 1991), 91-99; Louisa Schell Hoberman, *Mexico's Merchant Elite, 1590-1660: Silver State, and Society* (Durham: Duke University Press, 1991); Richard Boyer, *Lives of the Bigamists: Marriage, Family, and Community in Colonial Mexico* (Albuquerque: University of New Mexico Press, 1995), chaps. 2, 3.

7. Boyer, *Bigamists*, shows that while extended family networks were crucial to the migration and mobility of Spaniards in Mexico, movement sometimes fragmented families into nuclear units. Silvia Marina Arrom, *The Women of Mexico City, 1790-1857* (Stanford. Stanford University Press, 1985), 77, emphasizes "the basic social unit" of the nuclear family. Larissa Adler Lomnitz and Marisol Perez-Lizaur, *A Mexican Elite Family, 1820-1980: Kinship, Class, and Culture* (Princeton: Princeton University Press, 1987), 125, propose for the national period that "the basic unit of solidarity in the culture of Mexico is the grandfamily ... comprising one's parents, siblings, spouse, and children."

8. Patricia Seed, *To Love, Honor and Obey in Colonial Mexico: Conflicts over Marriage Choice, 1574-1821* (Stanford: Stanford University Press, 1988)-, Thomas Calvo, "The Warmth of the Hearth: Seventeenth-Century Guadalajara Families," in *Sexuality and Marriage in Colonial Latin America*, ed. Asuncion Lavrin (Lincoln: University of Nebraska Press, 1989), 287-312; Carmen Castaneda, "La formacion de la pareja y el matrimonio," in Gonzalbo Aizpuru, *Familias Novohispanas*; Matthew Restall, " 'Repugnant the difference': The Roles of Race, Gender, Sexuality, and Love in Personal Relations in Colonial Hispanic Yucatan" (paper presented at the American Historical Association, Chicago, 1995).

9. Robert M. Hill II and John Monaghan, *Continuities in Highland Maya Social Organization: Ethnohistory in Sacapulas, Guatemala* (Philadelphia: University of Pennsylvania Press, 1987), 38-42.

10. Robert M. Hill II, *The Pirir Papers and Other Colonial Period Cakchiquel-Maya Testamentos* (Nashville: Vanderbilt University Publications in Anthropology, 1989); idem, *Colonial Cakchiquels: Highland Maya Adaptation to Spanish Rule, 1600-1700* (Orlando: Harcourt Brace Jovanovich, 1992), 33-38.

11. Jerome A. Offner, "Household Organization in the Texcocan Heartland," in *Explorations in Ethnohistory: Indians of Central Mexico in the Sixteenth Century*, ed. H. R. Harvey and Hanns J. Prem (Albuquerque: University of New Mexico Press, 1984), 127-46; Lockhart, *The Nahuas*, chap. 3; Susan Kellogg, *Law and the Transformation of Aztec Culture, 1500-1700* (Norman: University of Oklahoma Press, 1995), chap. 5.

12. As Calvo, "Guadalajara Families," 287-89, points out.

13. Lawrence Stone, *The Family, Sex, and Marriage in England, 1500-1800* (New York: Harper and Row, 1977); Jack Goody, *The Development of the Family and Marriage in Europe* ,(Cambridge: Cambridge University Press, 1983); Richard Wall Jean Robin, and Peter Laslett, *Family Forms in Historic Europe* (Cambridge: Cambridge University Press, 1983). Nor is there a Maya-rooted term for *family* used by Yucatec speakers today; instead the Spanish *familia* has been borrowed, but even then, in the possessed form *infaamilyaa*, the term is used only by men and means "my wife"; William F. Hanks, *Language and Communicative Practices* (Boulder, CO: Westview, 1996), 277.

14. Lockhart, *The Nahuas*, 60-68.

15. Ralph L. Roys, *The Indian Background of Colonial Yucatan* (Washington, DC: Carnegie Institution, 1943), 21; Ralph L. Roys, France V. Scholes, and Eleanor B. Adams, eds., "Census and Inspection of the town of Pencuyut, Yucatan, in 1583 by Diego Garcia de Palacio, oidor of the audiencia of Guatemala," *Ethnohistory* 6 (1959): 205; Farriss, *Maya Society*, 134. A census of 1569 recorded nine married couples living on the household compound of the governor of the community of Tixchel, in the Chontal region at the base of the peninsula; France V. Scholes and Ralph L. Roys, *The Maya Chontal Indians of Acalan-Tixchel* (1948; Norman: Oklahoma University Press, 1968), 54. These numbers suggest some continuity from preconquest times: using mostly archaeological data (and some ethnohistorical early-colonial sources), the contributors to *Precolumbian Population History in the Maya Lowlands*, ed. T Patrick Culbert and

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Don S. Rice (Albuquerque: University of New Mexico Press, 1990), estimate pre-Columbian lowland Maya occupancy levels of 4 to 5.6 individuals per house, with most suggesting that about 10 family members could have lived in the larger structures; although these scholars tend to equate households with houses, most argue that houses were arranged in residential clusters (see n. 74 below), and several, for example, B. L. Turner II, "Population Reconstruction of the Central Maya Lowlands: 1000 BC to AD 1500," 307-8, recognize that extended families could have occupied multiple adjacent structures (typically grouped in pairs or trios in central lowland sites). The estimate of 10 household members is also consistent with the findings of a recent investigation into colonial-era parish records by Edward Kurjack, Elena Lincoln, and Beatriz Repetto, "Models for Maya Archaeology from Church Archives" (paper presented at the 49th International Congress of Americanists, Quito, Ecuador, 1997).

16. CC; TI.

17. Due to three problems with the figures on married children: they are for household head couples only, not all couples in the community; some of the individuals assumed to be married children could be siblings; some of a head couples' children could be head couples themselves or at least living in other households.

18. TE: 196 (*in ualob ma u ioaballobi cantulobili*).

19. Note, for example, the contrast with respect to infants between Cacalchen and the other communities included in Table 3 (and Figure 1), suggesting that outbreaks of disease (in this case, presumably one to which children were most susceptible) could be highly localized. For Andean examples of disease likewise affecting single seven-year generations in particular communities, see Karen Powers, *Andean Journeys: Migration, Ethnogenesis, and the State in Colonial Quito* (Albuquerque: University of New Mexico Press, 1995), 178-79.

20. This pattern is compiled from estimates in Farriss, *Maya Society*, 57-65; Manuela Cristina Garcia Bernal, Yucatan: Poblacion y encomienda bajo los Austrias (Seville: Escuela de Estudios Hispano-Americanos, 1978), 163; Marta Espejo-Ponce Hunt, "Colonial Yucatan: Town and Region in the Seventeenth Century" (Ph.D. diss., University of California, Los Angeles, 1974), 163-67; and BNM-FF, 468, 51 and 59-78 (census of 1794). See also Robert W. Patch, *Maya and Spaniard in Yucatan, 1648-1812* (Stanford: Stanford University Press, 1993), 139.

21. Diego de Landa, *Relacion de las cosas de Yucatan* (1566; reprint, Mexico City: Porrua, 1982), 42. Farriss, *Maya Society*, 173, argues that Spanish pressure explains the change, as marriage made a Maya man eligible for the labor draft and for tribute payment as a new household head.

22. Despite four problematic aspects of the data in Table 4 - the age categories, the suspicious tidiness of the Tekanto entries, the high incidence of older single residents, and the inclusion of non-Mayas in the Valladolid-Saci entry - the suggestion that marriage ages were later than early teens is clear.

23. Robert McCaa, "Marriageways in Mexico and Spain, 1500-1900," *Continuity and Change* 9, no. I (1 994): 12.

24. Roys, Scholes, and Adams, "Cozumel," 15, cite Diego de Landa and the *oidor* Tomas Lopez; Landa, *Relacion*, 42, refers to the labor obligation.

25. Andres Cutz, a mid-eighteenth-century resident of Motul, assumed in dictating his will (ANEY 1796-97, 205; discussed further below) that not only would his son raise a family on the *solar* where Andres himself had lived, but that his daughters would attract husbands to the contiguous house-plots that Andres was providing for them too.

26. Explained more technically in Philip C. Thompson, "Tekanto in the Eighteenth Century" (Ph.D. diss., Tulane University, 1978), 81-82.

27. CC; TI, 20. Patricia McAnany, *Living with the Ancestors: Kinship and Kingship in Ancient Maya Society* (Austin: University of Texas Press, 1995), 121, may be right in suggesting that the finding of subordinate non-kin household members in Morelos by Pedro Carrasco, "The Joint Family in Ancient Mexico: The Case of Molotla," in *Essays in Mexican Kinship*, ed. Hugo Nutini, Pedro Carrasco, and J. M. Taggart (Pittsburgh: University of Pittsburgh Press, 1976),

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55, was paralleled by Yucatec practice, and she cites Landa's reference to orphan adoption by some Maya households. Indeed, there are signs in wills from the Ixil and Tekanto collections of adoption in the eighteenth century (TI, 30; DT, 151, 170).

28. Kinship terminology drawn from LC, TI, DT, and the analysis of DT in Thompson, "Tekanto," chap. 2 and 151-53. On colonial-era Maya-language variants and changes, see Restall, *The Maya World*, chap. 22.

29. While also making a general distinction between cross and parallel kin; see Thompson, "Tekanto," 81.

30. Restall, *The Maya World*, chaps. 5, 6. Thus a Maya woman seeking protection from, say, physical threat or sexual abuse would turn first to her husband (TT, 32-33) and then to her community governor (*batab*) (AGN *Inquisicion* 69, 5, 169-74); husbands also appealed to the batab and community council to defend their wives (AGN *Bienes Nacionales* 21, 20, 2-8; *Inquisicion* 69, 5, 277), while councils sometimes had to defend women from their own husbands (TE, 284).

31. Restall, *The Maya World*, chap. 19.

32. TI, 56; ANEY 1819(iv), 19r.

33. McAnany, *Living with the Ancestors*, 120; Richard Trexler, *Sex and Conquest Gendered Violence, Political Order and the European Conquest of the Americas* (Ithaca: Cornell University Press, 1995), 179-80.

34. Examples of inheritance dispute resolutions, all largely disguising prior intrafamily hostilities, are in TI, 35 and 40 (see Restall, *Life and Death*, 103-6,116-21) and DT, 185. Families often endeavored to prevent such disputes by including statements, embedded within testaments, of confirmation or renunciation by multiple family members (e.g., TI, 51; DT, 61). Families, like communities, were naturally prone to internal conflicts - often along divisions of generation, gender, or faction - that did not necessarily destroy group integrity; in fact, as Steve Stern, *The Secret History of Gender: Women, Men, and Power in Late Colonial Mexico* (Chapel Hill: University of North Carolina Press, 1995), chap. 6., has observed for elsewhere in colonial Mexico, conflict and solidarity could be paradoxically interlinked, the tendency toward the former promoting the latter.

35. Thus, the Maya term for "noble(man)," *almehen*, means literally "the child of a woman, the son of a man."

36. Hill, *Colonial Cakchiquels*, 32-35.

37. As Hill, *Colonial Cakchiquels*, 32, points out.

38. This early-colonial transition from a system of unilineal or parallel descent to one of patrilineal descent only, as suggested by naming patterns, is similar to that proposed by Irene Silverblatt for the Andes, *Moon, Sun, and Witches: Gender Ideologies and Class in Inca and Colonial Peru* (Princeton: Princeton University Press, 1987), 132.

39. Ralph L. Roys, "Personal Names of the Maya of Yucatan," in *Contributions to American Anthropology and History* 31 (1940):31-48; Restall, *The Maya World*, chap. 4; AGN *Inquisicion* 1187, 2, 59 (example of Pabla, written in Maya with a feminizing prefix as *xpab*); ANEY (land records in Maya throughout colonial-era volumes); DT; LC; TE; TI. The Juan and Luisa examples are taken from the same fauffly (TE, 222).

40. Examples: TI, 32,40,41; AGN *Tierras* 1359, 5, 19.

41. AGN *Tierras* 1359, 5, 19-22; my translation from the Maya. The link between land and ancestors in ancient Maya society is explored extensively in McAnany, *Living with the Ancestors*.

42. The Maya term is *kax*, literally "forest"; it was used by some communities (for example, Tekanto) to describe uncultivated plots, as distinct from cultivated fields (usually *col*, but many communities (for example, Ixil and, above, Homun) used it to refer to cultivable plots regardless of whether the land was at that moment forested, fallow, or fully cultivated. On colonial-era Maya land description and tenure, based on Maya-language sources such as Felipe Noh's will, see Restall, *The Maya World*, chaps. 13-17.

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43. TCh; TY; TX.

44. TI (testaments dated 1765-1768 of children of the couples). In nine wills from Ebtun, 1811-1813 (TE, between 224 and 242), of ten named couples, half appear to be community-endogamous marriages and half cannot be identified either way.

45. Patch, *Maya and Spaniard*, 60.

46. David J. Robinson, "Migration Patterns in Colonial Yucatan" (paper presented at the International Conference of Latin American Geographers, Merida, Yucatan, Mexico, 1987).

47. Although I have avoided bringing ethnicity into the discussion of marriage, it is worth observing that while the mestizo (indigenous-European mixed) population was growing rapidly in Merida and other Spanish centers (Patch, *Maya and Spaniard*, 234-35; AGEY *Censos y padrones*, vols. 1, 2), much of this miscegenation was extramarital or resulting from the internal growth of the mestizo sector, while marriages between Mayas and non-Mayas were actually rare in the Maya world; for example, although eighteenth-century Tekanto had a relatively large non-Maya population of about 30 percent, endogamy among the Maya residents was 93 percent, and among nonnoble Mayas, including commoner-noble Maya marriages, 97 percent (Thompson, "Tekanto," 253). It would thus be safe to say that the typical Maya family was ethnically homogeneous. John K. Chance, "The Caciques of Tecali: Class and Ethnic Identity in Late Colonial Mexico," *Hispanic American Historical Review* 76 (August 1996): 494-98, noted that in late-colonial Tecali in the province of Puebla, both community and ethnic endogamy was high; endogamy among the Nahua elite, while declining through the eighteenth century, was initially high and remained significant.

48. Landa, *Relacion*, 41-42.

49. Hill and Monaghan, *Highland Maya Social Organization*, 32-33.

50. Based on analysis of a 1688 census from AGI in Roys, "Personal Names," as well as TE and TI. Chance, "The Caciques of Tecali," 487-88, found concentrated clusters of noble cognatic patronym-groups in late-colonial Tecali.

51. TE; TI and DT; Maya sources in ANEY (volumes numbered but not dated 1776-1839). The locations of these communities are discussed in the notes to Table 2. For populations of individual communities, see Patch, *Maya and Spaniard*, Appendix A. The figures suggested by late-eighteenth-century parish records are a little higher, with 20 percent to 30 percent of patronyms represented in larger Maya communities; Kurjack, Lincoln, and Repetto, "Models for Maya Archaeology."

52. Landa's statement (Relacion, 42) on the taboo of marrying someone from one's own patronym-group is borne out strongly by colonial-era evidence. Of the hundreds of couples that appear in close to two thousand extant Maya-language notarial records, I have noted just three cases of chibal endogamy, two of them Pech and one Xiu (TI, TX); as elite chibalob with few peers, these dynasties were presumably driven on occasion by the imperative of class endogamy to break the taboo and marry one of their own.

53. CC (also see Table I), LC; TI; also see Restall, *Life and Death; The Maya World*, chaps. 9-10.

54. As demonstrated by Thompson, "Tekanto," chap. 2.

55. TI, I and 29; LC, 8; CC (total of 40 patronym-groups and 143 couples in both communities combined). This is not to suggest that individual romantic choice played no role, but clearly individuals may believe they are guided by love and be unconscious of certain social pressures to which they are nevertheless susceptible, as observed by Lomnitz and Perez-Lizaur, *Mexican Elite Family*, 135; also see Restall, "Personal Relations."

56. The importance of female roles in the related matters of marriage patterns and property ownership modifies but does not undermine the existence of gender hierarchy and patriarchy in colonial-era Maya society; individual women were potentially empowered by their patronyms and the property they owned, thereby influencing the course of marriage alliances between patronym-group, yet it was the patronyms of men that were passed onto children, and it was men who controlled the most valued property item, arable land. For a complementary discussion

of this issue, see Matthew Restall, "'He Wished It in Vain': Subordination and Resistance among Maya Women in Post-Conquest Yucatan," *Ethnohistory* 42 (Fall 1995): 577-94.

57. "Asymmetry" is applied to the pre-Columbian Maya family by McAnany, *Living with the Ancestors*, 111-24, and to the modern Yucatec Maya family by William F. Hanks, *Referential Practice: Language and Lived Space among the Maya* (Chicago: Chicago University Press, 1990), 115-19.

58. As Farriss, *Maya Society*, 138-39,169, observes, all social groups are corporate to some extent, but the corporate nature of the Maya family extended beyond mere affiliation to a powerful sense of identity. Arrom, *The Women of Mexico City*, 76-81, discusses family and corporatism in colonial Mexico.

59. A common historiographical starting point is Eric Wolf, "Closed Corporate Peasant Communities in Mesoamerica and Central Java," *Southwestern Journal of Anthropology* 13, no. 1 (1957), and *Sons of the Shaking Earth* (Chicago: University of Chicago Press, 1959). Also see the bibliographies to Eric Van Young, "Mexican Rural History Since Chevalier: The Historiography of the Colonial Hacienda," *Latin American Research Review* 18, no. 3 (1983): 5-46, and Steve Stern, "Feudalism, Capitalism, and the World-System in the Perspective of Latin America and the Caribbean," *American Historical Review* 93, no. 4 (1988): 829-72.

60. By "other demands," I am primarily referring to the *repartimiento*, which in Yucatan was a forced sale of goods at below-market prices imposed on a community by Spaniards working independently and/or for the colonial provincial administration; on repartimientos and the Maya role in the colonial economy, see Farriss, *Maya Society*; Garcia Bemal, *Yucatan: Poblacion y encomienda* (as well as a long list of articles by Garcia Bemal published 1979-1994 in Spain and cited in Restall, *The Maya World*); Patch, *Maya and Spaniard*; Restall, *The Maya World*, chaps. 14,17; idem, "Identity and Legitimacy: The Rulers and the Ruled in Colonial Yucatan" (paper presented at the Pacific Coast and Rocky Mountain Councils on Latin American Studies, Santa Fe, New Mexico, 1996).

61. Christine Kray, "Worship in Body and Spirit: Practice, Self, and Religious Sensibility in Yucatan, Mexico" (Ph.D. diss., University of Pennsylvania, 1997); idem, "New Labors, New Lives: Capitalist Practice and Critique in Yucatan" (paper presented at the American Anthropological Association, San Francisco, 1996); Karl Marx, *Capital: A Critique of Political Economy* (1867; reprint, New York: Vintage, 1977); Wolf, "Peasant Communities"; idem, *Shaking Earth*; Sol Tax, *Penny Capitalism: A Guatemalan Indian Economy* (Washington: Smithsonian Institution, 1953).

62. Banker example: LC, 33. Cash use examples: TE, 224, ANEY 1736-37, 400; AA (*cofradia* records cited in Farriss, *Maya Society*, 500). Wealth differences: DT (and Thompson, "Tekanto," 118-25 on relative landed wealth in DD; LC; TI (and Restall, *The Maya World*, chap. 7 on same in TI). Commodity domination: the Coba and henequen, and the Yam and apicultural products, in late-eighteenth-century Ixil (TI, 10, 33). There are numerous examples in the Maya-language record of debt dealings involving cash, land (TI, 41), or even, on the part of one choirmaster, masses (TE, 28).

63. Patch, *Maya and Spaniard*, 247 (emphases his). Patch argues (245-49) that the colonial economy was neither feudal nor Capitalist, being (like all economies) too complex and diverse "to be forced into the straightjacket of the long-cherished typology of modes of production" (249).

64. On late-colonial wage labor see Patch, *Maya and Spaniard*, 166-200. One of the colonial battlegrounds between Spanish and Maya authorities was the question of employment versus labor service. For example, the provincial governor built a new citadel in Merida in the 1660s using laborers from Maya communities in and around the city; the Maya authorities in these communities repeatedly petitioned to receive wages for this labor, achieving some success only in the wake of an unfavorable *residencia* (royal investigation into a term of office) report on the governor (AGI *Escribania* 315b, *cuadernas* 30-31 on the citadel affair, 315a-310a on the

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residencia; Restall, "Identity and Legitimacy"). For other examples, see Restall, *The Maya World*, chap. 19.

65. For a more detailed discussion of this view of the cah (Maya community) as divided into residential and territorial spaces, a division with economic and gender dimensions, see Restall, *The Maya World*, chaps. 3,10,16.

66. More extensive interests in particular industries tended to be linked to the nature of the community economy; apiculture was central to the seventeenth-century Cacalchen and eighteenth-century Ebtun economies, for example, and thus men were just as involved as women in beekeeping, perhaps marginally more so (LC; TE).

67. For a more detailed analysis of the material environment as contained in these sources (DT; LC; TE; TI), see Restall, *The Maya World*, chaps. 8, 1 0 (for the division of labor by gender), 14.

68. Restall, *The Maya World*, chaps. 10, 14; Patch, *Maya and Spaniard*, especially chap. 4.

69. ANEY 1796-97, 205. Cutz's will is published in transcription and translation in Matthew Restall, "Interculturation and the Indigenous Testament in Colonial Yucatan," in *Dead Giveaways: Indigenous Testaments of Colonial Mesoamerica and the Andes*, ed. Susan Kellogg and Matthew Restall (Salt Lake City: University of Utah Press, in press).

70. Farriss, *Maya Society*, 169.

71. Deborah Kanter, "Hijos del Pueblo: Family, Community, and Gender in Rural Mexico, the Toluca Region, 1730-1830" (Ph.D. diss., University of Virginia, 1993), 219 ff. shows apparently high numbers of nuclear units in Toluca, but she also quotes the late-eighteenth-century Archbishop Lorenzana of Mexico City and Bishop Fabian of Puebla urging in pastoral letters the immediate creation of nuclear homes for newlyweds, primarily to avoid family "dissension," although Lorenzana admits that the goal is to improve tribute collection (223-24). Farriss, *Maya Society*, 169, cites a couple of edicts to the same effect, as do Roys, Scholes, and Adams, "Cozumel," who assume that the multifamily households found on Cozumel in 1570 represented "conditions which had been abolished elsewhere in northern Yucatan" (7), that is, in the mainland colony, as colonial communities were so "closely under the supervision of the missionaries and the Spanish civil authorities" (14). This assumption is highly questionable; furthermore, the repeated reissue of an edict in Spanish America usually signified noncompliance rather than repeated and successful imposition. I find no comment on this topic in William Taylor's otherwise encyclopedic *Magistrates of the Sacred: Priests and Parishioners in Eighteenth-Century Mexico* (Stanford: Stanford University Press, 1996). For a discussion of clerical efforts to oblige indigenous Andeans to marry, with the issue interpreted as one of conflicting sexual values (rather than one of settlement patterns or tribute arrangements), see Ward Stavig, " 'Living in Offense of Our Lord': Indigenous Sexual Values and Marital Life in the Colonial Crucible," *Hispanic American Historical Review* 75 (November 1995): 597-622.

72. Property sales in ANEY, various volumes. Landa, *Relacion*, comments that young couples lived in small houses opposite their fathers or fathers-in-law (cited by Roys, Scholes, and Adams, "Cozumel," 14;'15).

73. Lomnitz and Pérez-Lizaur, *Mexican Elite Family*, 130-34, on the Mexico City elite; Larissa Lomnitz, *Networks and Marginality: Life in a Mexican Shantytown* (New York: Academic Press, 1977) and Lourdes Arizpe, *Migracion, etnicismo y cambio economico* (Mexico City: El Colegio de Mexico, 1978) on the Mexico City poor. Studies of modern-day rural mestizo and indigenous communities also emphasize the importance of residentially clustered extended grandfamilies - examples are Hugo Nutini, *San Bernardino Contla* (Pittsburgh: University of Pittsburgh Press, 1968), E. Z. Vogt, *Zinacantan: A Maya community in the Highlands of Chiapas* (Cambridge, MA: Belknap, 1969); Alice Littlefield, *La industria de las hamacas en Yucatan, Mexico* (Mexico City: Instituto Nacional Indigenista, 1976); Claudio Lomnitz-Adler, *La evolucion de in sociedad rural: Historia del poder en Tepozilan* (Mexico City: Fondo de Cultura Economica, 1982); and Mary Lindsay Elmendorf, *Nine Mayan Women: A Village Faces Change* (Rochester, VT: Schenkman, 1985).

74. Ellen Kintz, "Neighborhoods and Wards in a Classic Maya Metropolis," in *Coba: A Classic Maya Metropolis*, ed. W. J. Folan, Ellen Kintz, and L. A. Fletcher (New York: Academic Press, 1983), 179-90; Edward Kurjack, *Prehistoric Lowland Maya Community and Social Organization: A Case Study at Dzibilchaltun, Yucatan, Mexico* (New Orleans: Tulane University Middle American Research Institute, 1974), 71-89; McAnany, *Living with the Ancestors*, 49-60, 100-105; Evon Vogt, "Ancient and Contemporary Maya Settlement Patterns: A New Look from the Chiapas Highlands," in *Essays in Prehistoric Settlement Patterns: Essays in Honor of Gordon R. Willey* (Cambridge: Peabody Museum of Harvard University; Albuquerque: University of New Mexico Press), 89-114; William Haviland, "Ancient Lowland Maya Social Organization," in *Archaeological Studies in Middle America* (New Orleans: Tulane University Middle American Research Institute, 1968), 109. Also see Culbert and Rice, *Precolumbian Population History*, for studies of other Maya sites (see n. 15 above). Pre-Columbian residential clusters were effectively the precursors to the blocks of colonial and modern communities, with the ancient terraces corresponding to the house-plots that contained several houses in both preconquest and postconquest times.

75. ANEY 1826ii, 340-41 and 1835ii, 99-101 (outside purchaser examples); TE, 221-22 (a representative of the Dzul patronym-group in Ebtun reunited a plot that, over the course of three generations, had split into two, into the hands of Noh-Cutis and Dzul-Un households, respectively).

76. TC, 111-12 for an example of road-building reaching Calkini around 1580. The lack of a single reference to a house-plot (solar) in Cacalchen wills of the 1640s-1650s implies that this reconstruction had yet to reach the community by this time (LC). The process of pueblo formalization was still continuing in the last colonial decade, no doubt partially as a result of population growth (AGEY Ayuntamiento, Colonial, 1, 11-16).

77. AGN *Bienes Nacionales* 21, 20, 2 for an example of a Maya noblewoman justifying missing catechism because she was retrieving the animals that had wandered off her house-plot.

78. ANEY (1826ii, 34-36 for women at a land sale); DT; LC; TE (222 for Cutis example); TI. No collections of Maya wills appear to have survived from the first century of colonial rule in Yucatan. Altman, *Emigrants and Society*, 151, and Hoberman, *Merchant Elite*, 231, among others, have noted that despite Spanish customs of even distribution of goods among children, elder sons of elite families tended to get the lion's share in Spanish family bequests (a process that the wealthiest families formalized by *mayorazgo* petition); this was seldom the case among the Yucatec Mayas. Farriss, *Maya Society*, 170, argues that Spanish inheritance rules "distorted" and "conflicted with . . . the corporate, patrilineal principles" of the Maya system; I see no evidence of a conflict of principles, as patrilineality was maintained through nominal male ownership of cultivated land (the Mayan' most valued socioeconomic item), while the inclusion of female family members as owners, residents, and workers was central to the corporate integrity of the household complex. Also see Restall, *The Maya World*, chap. 9, *Life and Death*, and *The Maya World*), including two illustrative cases. One is that of the widow Maria Kantun of Itzmal (the Maya community west of Merida that was also Spanish Izamal). Although Maria's husband, the nobleman Vicente Cauich, had left her a parcel of forested land in his will, the noble male representatives of the Kantun patronym-group in Itzmal, Matias and his son Francisco, had the community authorities ratify a 1797 statement of possession confirming that the land was in Maria's name; this was presumably to protect her interests against her two sons by Vicente Cauich, for when Maria sold the land in 1803, these Cauich brothers appeared in the bill of sale to acknowledge it as valid. Maria's status as owner of forested land was exceptional enough to require additional legal fortification; the fact that in this series of Maya-language records the term *viuda* is used to describe Maria suggests that the property status of widow was not as deeply rooted in Maya culture as other aspects of land tenure (I have not seen *viuda* used in pre-eighteenth-century Maya records) (ANEY 1818ii, 1-4). If society was uncomfortable with independent widows, as Stern (*Secret History*, 117-23) has suggested for late-colonial

Morelos, then social pressures may have led such women back into dependent relationships with male kin. The other sample case is that of Petrona Pat of Hunucma, who inherited a cultivated plot from her father, adjacent to plots inherited by her mother, brother, and sister; in 1826, she and her mother both individually sold their plots to a local mestizo (ANEY *Escrituras Hunucm* , 86-87).

80. TI, 23.

81. McAnany, *Living with the Ancestors*, 109, who cites similar arguments made by George Collier and Pedro Carrasco in studies of other Mesoamerican regions.

82. Kellogg, *Aztec Culture*, 160-219 (quotation on 215); Roys, Scholes, and Adams, "Cozumel," 15; Farriss, *Maya Society*, 169.

83. On Nahua social organization see Lockhart, *The Nahuas*, and Kellogg, *Aztec Culture*.

84. McAnany, *Living with the Ancestors*, 110.

Music Lesson

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I. Learning Goals

Instructional objectives:
At the conclusion of the lesson the student will be able to:

- Name at least four Latin music styles
- Name at least one contemporary Latin music Superstar
- Name various cultures that led to the development of contemporary Latin music and the conflicts that may have brought such change
- Explain how we know about pre-Hispanic music
- Describe music's place in Maya culture and the various instruments used

Lesson

a. Overall Concept: Basic knowledge of pre-Hispanic through contemporary music - key cultures and evolutionary points
b. Specific Components: Students will be given a list of guiding questions and a list of websites containing information, answers, and related topics. Students will research on the internet and answer all questions.

II. Assessment:
Students will be assessed based on the answers they give to the assigned questions.

III. Websites:
http://encarta.msn.com/find/concise.asp?ti=0083c000
http://encarta.msn.com/find/concise.asp?z=1&pg=2&ti=761576077
http://www.todolatino.com/entertainment/music/
http://jan.ucc.nau.edu/~hgb/mexico/40MUSDAN.html

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Music of Latin America Worksheet

Latin music is currently a very popular and influential musical genre, with Latin pop stars ranging from Ricky Martin to Christina Agulera. It has influenced our culture greatly, with many musicians adopting a Latin sound. Like America's rock, pop, and rap, Latin music has developed through a blending of various cultures.

To learn more about Latin music,
Answer the following questions using these web addresses:

http://jan.ucc.nau.edu/~hgb/mexico/40MUSDAN.html
www.am-latino.com

1.) When cultures interact they have a tendency to influence each other. True/False

2.) Does the environment have an effect on the development of a culture and its music? Why?
_____
_____

3.) _____are the 'oldest layer' in the foundation of Latin Music.

4.) Most of our information pertaining to Native American music is from the writings of early Europeans and _____.

5.) Native Americans often used musical structures imitating sounds of nature. True/False

6.) Name six different materials Native Americans used to make instruments.
_____, _____, _____,
_____, _____, _____

7.) What culture was first to invade and impact Native American lifestyle? _____

8.) Name five instruments the Spanish brought with them to the Americas.
_____, _____, _____,
_____, _____

9.) What kind of cadence gives Spanish music it's characteristic sound? _____

10.) What rhythmic device was often used in Spanish music as a form of syncopation? _____

11.) Who was brought to the Americas against their will? _____

12.) Call and response, falsetto voice, musical repetition, syncopation, xylophone-marimba, accented percussion, various drums and rhythms were all introduced by who? _____

13.) Musically, Native Americans emphasized the _____ line or tune.

14.) Musically, Europeans were known for their intricate use of _____.

15.) Musically, the Africans are best known for their _____.

16.) Western Europeans were not involved in the evolution of Latin music. True/False

17. Name five new instruments introduced by the western Europeans.

_____, _____, _____,
_____, _____

18.) Do different cultures still interact and influence each other musically?

_____
_____

19.) Technology plays a great role in the evolution of music in our society. True/False

20.) Summarize the evolution of Latin music.

_____
_____
_____

Bonus Question ****

Name at least four current Latin musicians who are popular and influential in the United States.

_____, _____, _____,
_____, _____, _____,
_____, _____, _____

HEALTH

COMPARING SEXUALLY TRANSMITTED DISEASES IN THE MAYA CULTURE AND THE UNITED STATES CULTURE

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OBJECTIVES:

1. To obtain knowledge of sexually transmitted diseases including prevention and treatment.

2. To obtain information on the social and sexual concerns that are present in the Maya culture and compare them with the culture of the students involved in the study.

ACTIVITIES:

1. As students arrive, give each student a paper with a bean inside (fold and staple the bean inside). When class begins, explain that we will be discussing several diseases that affect both our own society and that of the Maya. Ask the students to open their package. The colored beans represent the following:

WHITE BEAN - Syphilis

BROWN BEAN - Herpes

RED BEAN - HIV

NO BEAN - Abstinence

Discuss with the class that syphilis may have been the cause of death for some people in the Colonial Maya Civilization. There is some controversy as to whether the Spanish gave the disease to the Maya or the Maya gave it to the Spaniards. Herpes is another sexually transmitted disease that is found within the Maya culture. Genital herpes is easily spread through sexual contact. HIV is the virus that causes AIDS. Cases have been found all over the world and is another disease that the Modern Maya have had to encounter. If you did not get a bean, you chose to remain abstinent or were just very lucky! The sexual morals in most Mayan countries today and in the past do not promote sexual abstinence. The use of condoms can be found in today's society but are not as available as they are to the citizens of the U.S.

2. Each group will then be given a large piece of paper to write and answer the following questions. They can make a poster for a class presentation. Fact sheets and other information can be printed off the Internet sites (listed at the end of the lesson) and used to answer the questions. The groups are determined by the color of bean that they chose. Abstinence can also be a group and can answer the same questions or modified ones.

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QUESTIONS:

1. What is the name of your disease?

2. Is it curable? _____ If yes, how?

3. List 3 symptoms of this condition.

4. What parts of the body does this disease affect?

5. Could you get this condition or disease today?

6. How is it transmitted?

7. Can people die from this disease? ____ If yes, what is the cause?

8. Could your virtual child get this disease?

9. What are ways to prevent the spread of this disease?

10. Does your virtual child have access to condoms?

11. As a teenager, what similar problems would you and your virtual child both encounter?

12. How are sexual pressures (including abstinence) the same or different for you and your Virtual Child?

13. From background information you have acquired, what do you think are expectations of the Maya teenager in a dating relationship?

14. Using information from the web sites given, compare the statistics for AIDS for U.S. teenagers and Maya teenagers. How do they compare? Give reasons for any differences in the statistics.

SUPPLIES NEEDED:

1. Beans folded in a small square of paper and stapled.

5-8 Red Beans, 5-8 Brown Beans, 5-8 White Beans, 5-8 Empty Folded Papers

2. Large Markers

3. Large roll of paper or large sheets of paper.

EVALUATION:

1. The students will use the information given to complete the questions about the virtual child and STDs.

2. The students will use critical thinking skills to compare the challenges and concerns of sexual diseases in their culture and the Maya culture.

WEB SITES:

1. http://beWELL.com (search under Kids and Teens Health)
2. www.onhealth.com
3. www.kidshealth.org (search for key word)
4. www.thriveonline.com (click under Conditions)
5. www.metrokc.gov - (click STDs under Community Health).
6. www.cdc.gov/nchstp/dstd/dstdp.html
7. www.unaids.org/hivaidsinfo/statistics/june00/fact_sheets/pdfs/mexico.pdf -
8. http://wonder.cdc.gov/wonder/usr/anonymous/ANONE1A7FF8.../WDJ37RDR.PCW.00.htm
9. www.inegi.gob.mx/poblacion/ingles/estrupob/pob__02.html
10. www.census.gov/population/estimates/nation/intfile2-1.txt

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Foods in the Maya Culture
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Web sites for Foods in the Mayan culture:

http://www.caske2000.org/caske.htm

http://mayacuisine.com/maya/index_maya.html

www.USDA.gov (Subject: Letter N for Nutrition, also see subheading - Dietary Guidelines)

www.halfmoon.org (See 'Culture, Oddities, & Games')

Introduction :

The main staple of the Classic, Colonial, and Contemporary Maya is the tortilla. An example of when they served tortilla was during the Handwashing Ceremony, along with Pavo Mechado (stuck turkey). Today using a press and masa we will make are own tortilla.

Materials:
Masa
Tortilla press
Gourd filled with water and flowers
Four candles and some cigarettes for decorations
Recipe for tortilla page 89-90
Baby doll for ceremony

Time allotment: 90 minutes

Classroom: Foods Lab

Anticipatory Set:

The Handwashing Ceremony

When a child is born, the parents solemnly ask a trusted man and his wife to serve as the *compadre* who will carry the little one through the baptism ceremony. With the acceptance of such a favor, a close and significant union is established between the two families. After the baptism, when the child nears its first birthday, the parents provide a dinner and ceremony for the godparents of their baby. It is a solemn occasion with decorations of candles, frangipani and chili leaves. A small gourd of flower-filled water is provided for washing the hands of the *compadres* and all invited guests.
The parents provide a feast for their *compadres* and a gift of four candles and some cigarettes. (from *Mayan Cooking: Recipes from the Sun Kingdoms of Mexico.* Cherry Hamman.1998. New York: Hippocrene Books)

Compare this ceremony with other ceremonies celebrated through out the world.
Examples: Christian baptism
Jewish circumcision

Kitchen preparation:

Go over recipe for making tortillas and filling (see following page for recipe)

Safety issues:

No horseplay in the kitchens
Stay in your own kitchen
Use potholders when removing hot items from the stove

Prepare tortillas and filling.

Perform Handwashing Ceremony and serve food.

Clean up and review.

If time permits discuss nutritional value of foods consumed by the Maya.

Questions to be asked:

1. Why did Mayans use tortillas as the main staple of their diets?
2. What is a staple that is used in your own family?
3. What are some other ceremonies celebrated in your family?
4. What are some of the different types of equipment used by the Maya to prepare their food?

Assessment:

Students will participate in the mock ceremony.
Students will have completed the above activities successfully.

RECIPE FOR BASIC CORN TORTILLAS

Materials:

Tortilla press
2 plastic baggies or pieces of wax paper to sandwich the ball of masa or masa harina and keep it from sticking to the press
griddle or heavy skillet
basket or bowl lined with napkin or towel

Ingredients:

2 cups fresh masa,
or
2 cups of masa harina (made by Quaker Oats, found in major supermarkets)
1 cup water
(fresh masa outside of Mexico is virtually impossible to find)

Method:

Fresh masa needs no preparation
If using masa harina, hand patting is very difficult. Therefore:
Mix the masa harina and the water thoroughly.
For both the fresh masa and the masa harina, have the tortilla press, Baggies/ wax paper, griddle or heavy skillet, and cloth-lined basket or bowl

Heat skillet or griddle until a drop of water bounces from it.
Form a walnut-sized ball of dough from either the masa or masa harina.
Place one baggie or piece of wax paper on the bottom of section of the press.
Place a ball of dough on the press just slightly above the center and top it with the second baggie. Press the handle down firmly on the press, peel off the plastic or wax paper and place the tortilla on the griddle.

Toast for approximately a minute and a half, flip and toast for about 45 seconds more. Flip the third time, pressing on the tortilla with fingers or spatula to encourage the bread to inflate. Cook on third side only 30 seconds. Do not overcook- tortillas dry out quickly.

Place each cooked tortilla in cloth-lined basket to keep them warm and continue to cook others.
Yields 16 tortillas.

<u>Fillings (rellenos)</u>

For fillings for the tortillas, one can use a favorite cooked meat recipe with some Mexican seasonings added.

For more authentic recipes for fillings, consult the *Mayan Cooking* cookbook.

Culture's Impact Lesson
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Ohio Citizenship Competencies Addressed:
2, 3b, 6b, 12 (a,b,c,d), 13 (b,c,(b+c), 1-c, 1-d(a,b,c,d,e)

Objectives:
Students will:
1. define culture
2. discern five characteristics of culture
3. develop an understanding of sociological and anthropological concepts that relate to conflict
4. experience stereotypical vs. internal viewpoint
5. appreciate how the many facets of culture impact society

Materials Needed:
Transparencies – *Culture Defined*
Newsprint paper
Markers
Red and blue bands
Red and blue poker chips

Time needed:
45 minutes

Procedures:
Activity 1:
The teacher will ask students to form groups of three. Groups are given five minutes to define culture within their group. The teacher then uses the overhead transparencies. The class has a brief discussion about the dictionary definition of culture and the definition of culture at which they have arrive. Next, ask the students to identify the culture in which they exist. Use a 'four corners' project to realign the groups. The group will have 10 minutes to develop a list of characteristics of their culture. At the conclusion of the ten minutes, the class will come together and aggregate and disaggregate their responses and combine them into 5 universal characteristics (transparency – *Culture Defined*):

Culture is shared
Culture is learned
Culture is cumulative
Culture is diverse
Culture is integrated

Activity 2:
This is a 'We and They' Activity. The class divides by drawing a red or blue chip from a container. The red and blue groups will receive armbands of the color of their groups. The groups have 10 minutes to develop a list of characteristics for each group/ the groups will report out. The teacher will stress the concepts of 'We and Them', stereotyping, and 'Frame of Reference'. The discussion should be limited to 10 minutes.

Activity 3:
Students will realign using the "Virtual Child' city. The students will be asked to determine "what is the frame of reference for your Virtual City?" e.g., explain what your Virtual Child's world seems like in terms of politics, environment, and health/nutrition issues.

Activity 4:

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"How do cultural factors lead to conflict? Hand out a flyer with quotes from "The Other Republics: Five Hundred Years of Being Indian" by Glenn T. Curry. Teacher leads students in discussion of the quotes.

Assessment:
Teacher observation.

Bibliography:

MayaQuest – http://mayaquestmecca.com
http://informns.k12.mn.us
The United States Institute for Peace – http://www.usip.org
www.civilization.ca/members/civiliz/maya/mmc12eng.html.
www.wsu.edu:8000/~dee/CIVAMRCA/MAYAS.htm
Maya Adventure – www.sci.mus.mn.us/sln/ma/sites.html
http://MayaRuins.com
http://udgftp.cencar.udg.mx/ingles/precolombiana/maya/mayasintro.html.
http://indy4.fdl.cc.mn.us/~isk/maya/maya.html
http://Kroeber.anthro.mankato.msus.edu/prehistory/LatinAmerica
www.Lonelyplanet.comau/dest/nam/mexhis.html
http://www.eden.com/~mayan/perspectives.html.
http://webster.im.gte.com/timelapse/Tlhgmay.html.
http://Cougar.ucdavis.edu - Glyph Dwellers Report 4 (Go to Native American Studies, Got to native American Language Center, Go To Glyph Dwellers)
www.halfmoon.org%2flinks – links site
http://muweb.millersv.edu/~columbus/data/his/CURRY-02.HIS

Transparency – *Culture Defined*:

Culture is shared
Culture is learned
Culture is cumulative
Culture is diverse
Culture is integrated

9/21/00

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Flyer with Quotes from Glenn T. Curry for student use

In the Old World, such loyalties and the conflicts they engender are frequently the result of thousands of years of history. In the Americas, by contrast, most present-day groupings are the direct result of the events of 1492. From this date onward, the most fundamental distinction was between native peoples and new arrivals. This distinction remains crucial through much of the continent, even after almost five centuries of contact, acculturation, and biological mixing.

Students of Spanish American society have long recognized that "Indian" is a social, rather than racial, category.

Indians were viewed as people whose culture--language, customs--was rooted in their pre-Columbian past.

Indian communities often maintain the invisible boundaries which separate members from non-members through a complex ritual and symbolic system. These systems use a variety of means to maintain relative internal equality and solidarity.

If cultural differences are tools for marking ethnic differences, the question arises as to why the ethnic boundary is so scrupulously maintained. Several explanations have been posited. These include the assertion that the boundaries among ethnic groups are enforced by dominant groups as a means of supporting systems of economic exploitation. In this explanation, ethnic awareness is seen as the outcome or by-product of colonialism and as a means of continuing systems of internal colonialism.

Furthermore, there are an increasing number of situations in which Indians maintain or even strengthen their identity despite attaining economic equality with their Hispanic neighbors.

An alternative economic interpretation of the endurance of Indian groupings asserts that ethnic awareness, rather than being imposed by external forces, is an internal response to other pressures.

Ethnicity is maintained because membership in an ethnic group offers some individuals more advantages than disadvantages. What are these advantages? Some reasons for maintaining ethnic identity can be understood by examining non-economic factors. Indians may choose to remain Indian because doing so provides important non-economic rewards which modern, national culture cannot offer. Human needs, such as membership in a group, community solidarity, and a sense of being linked to a historical past may best be fulfilled by the assertion of membership in a particular ethnic group. Through the maintenance of traditions, ceremony, customs, costumes, or language, the ethnic bond seems to respond to near-universal yearnings.
Entire Article for Teacher Reference

http://muweb.millersv.edu/~columbus/data/his/CURRY-02.HIS

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"The Other Republics: Five Hundred Years of Being Indian"

by Glenn T. Curry

in "Encounters" (February 1992, No. 8, pp. 31-33)

Almost five hundred years have passed since Christopher Columbus's great voyage permanently and irrevocably linked the continents. During the intervening centuries, constant mixing of peoples and cultures has continued to enrich societies on both sides of the Atlantic. Many of the boundaries between Old and New World groupings have been blurred in the process; yet, some Native American groups have chosen to maintain their separate identities and cultures in spite of pressures from the surrounding societies to adapt and assimilate. As we approach the Quincentenary, it is worth pondering why these groups have remained distinct. Why, after half a millennium, do we continue to be so aware of differences among us?

When Columbus set sail, the nation-state was emerging in Europe as the dominant political structure for ordering concepts about world events. The activities of national governments and the rivalries among them became the primary focus of our history books, while other kinds of loyalties and groupings were frequently viewed as backward, pre-modern, and in a process of inevitable decline. This trend notwithstanding, notions of "peoplehood" which do not conform to national boundaries have continued to play a crucial role in societies around the world. The 1990s began with events that demand a renewed awareness of these kinds of ties. Whether in the context of Eastern Europe or in the Middle East, the structures of the nation-state often seem less meaningful and lasting than older loyalties marked by cultural differences and a sense of connectedness to a pre-national past.

In the Old World, such loyalties and the conflicts they engender are frequently the result of thousands of years of history. In the Americas, by contrast, most present-day groupings are the direct result of the events of 1492. From this date onward, the most fundamental distinction was between native peoples and new arrivals. This distinction remains crucial through much of the continent, even after almost five centuries of contact, acculturation, and biological mixing. From Alaska to Tierra del Fuego, there are large groups of people who consider themselves and who are considered by neighboring peoples to be the descendants of the original inhabitants of America. Groups such as the Cuna, Quechua, Seminole, or Navaho have maintained their identity as separate peoples and have fulfilled in unexpected ways the early Spanish goal of the Two Republics, Indian and European, separate yet inseparably bound together. Why has this happened? How have these groupings persisted through five hundred years of contact? What, in fact, is an Indian? Answers to these questions vary greatly from place to place within the Americas. However, research on the Indians of Middle America and the Andes suggests a number of themes that may illuminate some of the basic characteristics of the kinds of ties that are most frequently termed ethnic.

Students of Spanish American society have long recognized that "Indian" is a social, rather than racial, category. In many regions Indians and non-Indians share substantially the same genetic heritage, resulting from early and continued intermixture. An awareness that physical characteristics are not the determining factor has frequently led observers of particular settings to attempt to define Indians in terms of less complete acculturation than their non-Indian neighbors. Indians were viewed as people whose culture--language, customs--was rooted in their pre-Columbian past.

The difficulty in this approach lies in the numerous examples of acculturation which have not resulted in any appreciable weakening of the boundaries between Indian and non-Indian society. Instances in which such boundaries have been maintained and, indeed, strengthened despite almost total disappearance of cultural differences, have been described in contexts as distant as eighteenth-century Colombia and twentieth-century Guatemala. Furthermore, in most cases children of marriages between members of different groups have not resulted in the formation of intermediate categories. To the extent that intermediate groups exist, they usually represent gradations within the non-Indian community. An individual may be perceived as "more or less" white or Hispanic. One is either an Indian or not.

A further problem with the outside observer's use of cultural criteria to determine who is an Indian is the degree to which such criteria may change over time. Careful research has shown in many cases that typical "Indian" cultural elements, such as costume or music, are in fact Spanish in origin. Although the use of an Indian language is one marker of Indian status which can safely be assumed to be pre-Columbian in origin, it is not a crucial determinant. In nineteenth-century Cundinamarca, Colombia, Indians spoke only Spanish: in parts of Bolivia, on the other hand, Aymara is the first language of both Indians and most non-Indians alike.

Clearly, being Indian is not simply a case of being less acculturated or less advanced along the path toward assimilation into "modern" society. Rather, Indians, like members of ethnic groups everywhere, seem to be defined in terms of their own sense of a shared past. This past centers on membership in a community which is viewed as having historical roots in pre-Columbian times. Indians who permanently leave their own communities almost invariably cease to be viewed as Indians. Moreover, this perception generally remains even if they move only to another Indian community.

Indian communities often maintain the invisible boundaries which separate members from non-members through a complex ritual and symbolic system. These systems use a variety of means to maintain relative internal equality and solidarity. This, rather than any pre-Columbian cultural pattern, seems to be the origin and purpose of many of the features frequently described as typical of particular Indian cultures. Indeed, many such ethnic markers are most strongly emphasized during periods of especially strong pressures toward assimilation. Typical of this tendency is the situation described for two Mayan communities in Guatemala, where substantial acculturation was accompanied by increasing insistence on maintaining some few markers of the ethnic boundary, such as the wearing of traditional sashes. Similarly, in the area of Tlaxcala and Puebla, Mexico, Nahuatl is turning increasingly into a language of ethnic solidarity. As Indians come into increasing contact with outsiders, they are consciously using their language as an effective means of strengthening the ethnic boundary.

Hispanisms, which previously accorded their users preferential status, are being expunged from the language at the same time that honorifics--which establish social distance among Nahuatl speakers--are declining in use. Nahuatl is most frequently used in situations which relate to ethnic solidarity--to directing obscenities at outsiders, in compadrazgo ceremonies, and in terminology related to drinking. Interestingly, the consumption of pulque has also become a self-consciously utilized ethnic marker.

If cultural differences are tools for marking ethnic differences, the question arises as to why the ethnic boundary is so scrupulously maintained. Several explanations have been posited. These include the assertion that the boundaries among ethnic groups are enforced by dominant groups as a means of supporting systems of economic exploitation. In this explanation, ethnic awareness is seen as the outcome or by-product of colonialism and as a means of continuing systems of internal colonialism.

It is true that Indians have in most contexts been subordinate to Hispanics or Ladino groups. Indeed, in many areas the term indio is expressly used to describe a person who lacks sophistication, or money, or native intelligence. Nevertheless, there are several reasons why pressures from the dominant culture are an insufficient explanation for the persistence of ethnic distinctions. First, there are numerous historical examples of situations in which dominant groups have failed in their efforts to enforce racial or ethnic categories. Much has been written about the inability of Spanish administrators to create a workable system of keeping Indian and non-Indian societies separate.

Furthermore, there are an increasing number of situations in which Indians maintain or even strengthen their identity despite attaining economic equality with their Hispanic neighbors. One of the most striking of these cases is provided by the Zapotecs of Juchitlan, Mexico. Because non-Indians have only recently begun to represent an important part of the population of this town, the Zapotec have been able to establish and maintain a dominant position. In this case ethnicity is used by the Indians to reinforce their own status. One's "performance" as a Zapotec is judged on the basis of several cultural criteria: use of language, knowledge of Zapotec history, and ability to perform dances. All of this is voluntary: Zapotecs who visit Mexico City readily adopt the national style when it is convenient to do so.

An alternative economic interpretation of the endurance of Indian groupings asserts that ethnic awareness, rather than being imposed by external forces, is an internal response to other pressures. According to this explanation, Indian communities closed themselves off from contact with the world beyond because of perceived economic threats from Hispanic society. There is no doubt that this explanation is valid in a number of instances occurring at various historical junctures. In a study of the Tetzal Rebellion of 1712, Robert Waserstrom demonstrated how increasing exploitation strengthened Maya self-identification. Manning Nash posited that the "closed corporate community" emerged during the nineteenth century to protect Indians from increasing exploitation, and a similar reaction to perceived exploitation has been described for the Kikchi and Mopan of southern Belize since World War II. Like the assertion that ethnicity is imposed by dominant groups, this explanation suggests that ethnicity is primarily a result of economic factors. Indians who had equal access to material goods would no longer have reason to assert their separateness.

Again, the example of groups like the Zapotecs suggests that being Indian is an option chosen by

individuals who may occupy a range of economic levels. It is important to distinguish between the continuity of ethnic groups on the one hand and the individual's choice to maintain ethnic identification on the other. Just as the markers of ethnicity may change over time, so the size and influence of ethnic groups may also change as a result of individuals' decisions about the advantages or disadvantages of membership. If the costs of being Indian are perceived to be greater than the rewards, individuals may choose to pass into other, non-Indian, categories. Yet, the ethnic body can persist so long as there is a minimum membership and community structure.

Ethnicity is maintained because membership in an ethnic group offers some individuals more advantages than disadvantages. What are these advantages? Some reasons for maintaining ethnic identity can be understood by examining non-economic factors. Indians may choose to remain Indian because doing so provides important non-economic rewards which modern, national culture cannot offer. Human needs, such as membership in a group, community solidarity, and a sense of being linked to a historical past may best be fulfilled by the assertion of membership in a particular ethnic group. Through the maintenance of traditions, ceremony, customs, costumes, or language, the ethnic bond seems to respond to near-universal yearnings.

As the quincentennial of the Columbian voyages draws near, would events demand a reconstruction of our mental image of world geography. One part of this will be a rediscovery of the power of the older and more complex kinds of loyalties and conflicts which are best described in terms of ethnicity. A world that had been interpreted in terms of nations and "blocs" will be re-imaged as a mosaic of groupings with boundaries which are fluid and which almost never correspond to national borders. As we struggle toward this new understanding, an appreciation of the resilience and persistence of Indian communities within the Hispanic world may provide some insight into the nature and power of ethnic bonds everywhere.

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CONFLICT: DISEASE EPIDEMIC

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STATE PROFICIENCIES: SCIENCE COMPETENCIES:

1. **Develop understanding of relationships between and among science, technology and society in the past, present and future.**
2. **Evaluate information derived from popular and technical sources to determine the scientific validity in making evidence-based decisions.**
3. **Analyze and compare regulatory processes in living things.**

TECHNOLOGY RESOURCES:

1. http://www.geocities.com/Athens/Oracle/8492/index.html
2. http://www.seercom.com/bluto/smallpox/history.html
3. http://muweb.millersv.edu/~columbus/data/his/COWLEY01.HIS
4 http://www.indiana.edu/~h333/pox.html
5 http://web20.mindlink.net/stolo/firstcon.htm
6 http://www.seercom/bluto/smallpox/references.html
7 http://www.nativeweb.org/pages/legal/amherst/lord_jeff.html

BOOK:

Clendinnen, Inga. *Ambivalent Conquests. Maya and Spaniard in Yucutan 1517-1570* Cambridge University Press Cambridge United Kingdom, 1987 p19. P36.

OBJECTIVES:

1. Identify the cause and symptoms of smallpox, and factors that allow it to reach epidemic proportions.
2. Determine the effect of the smallpox epidemic on the Mayan civilization during the Colonial Period.

ASSESSMENT:

1. Satisfactory response to Summary Question

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LESSON OUTLINE: Smallpox and the Maya

I. **ACTIVITY: "Epidemic" cards. There will be 24 epidemic cards divided as follows: 14 black cards, 5 red cards, and 5 white cards. (black is death, red is ill, white is "no symptoms")**
One student will be given all 24 epidemic cards.
When the first person comes in contact or speaks to another person in the class he/she will give that person ½ of their cards, after keeping 1 card for themselves.
This process will continue for each recipient of cards, until each student has only 1 card remaining.

This activity will be timed. The devastating effect of the epidemic will be implied by the card colors showing the high percentage of death and illness caused by a smallpox.

II **DISTRIBUTION OF WEBSITE ADDRESSES**
Groups will download websites and share discs to obtain all websites.

III **INSTRUCTION**
(See Teacher Guide and Student Handout.)
Cause, symptoms, and statistics concerning smallpox will be provided which will be applicable to the "virtual child" concept.
Identify the cultural impacts of the conflict resulting from the smallpox epidemic during the Mayan colonial period (early 1500's).

IV **SUMMARY QUESTION**
How does the conflict of the smallpox epidemic in the Mayan civilization during the Colonial period compare to similar epidemics in other cultures past and present? Where? When? What disease was or is involved?

Teacher Guide
Conflict: Disease Epidemic
(15 minutes)
(All information can be verified by downloading websites)

Smallpox

I. History:

Smallpox originated about 3000 years ago in Egypt or India. It probably mutated from cowpox or other members of the 'pox' family after the human domestication of animals. Control of this disease did not begin to occur until the early 1700's when inoculation was used to prevent infection. The first epidemics in Central and Latin America occurred about 1510 when about 2.5 million people died in Hispanola. Cortez did not conquer the Aztec nation in Mexico City until after a smallpox epidemic destroyed millions. It is estimated that the population of Mexico declined from about 30,000,000 in 1519 to 3,000,000 in 1568 (90%) largely due to smallpox epidemics, rather than war and conquest. Regardless where smallpox epidemics occur the mortality rates will be a minimum of 33% to a maximum of about 80%.

In 1797 Dr. Edward Jenner developed smallpox vaccination that controlled smallpox, and prevented widespread epidemics. Serious epidemics of smallpox occurred throughout Europe prior to 1500. The Americas (North, South, and Central) did not have any epidemics prior to the early part of the 16th century (1510-1990). Why?

Eradication of smallpox was proclaimed by the World Health Organization in 1978.

II. Characteristics and symptoms of small pox:

Smallpox is caused by the parasitic virus Variola Major. Parasitic means that the virus must 'feed' off a host causing harm or death to that host. Viruses, as we now know, are non-living fragments of DNA that can not reproduce unless they have an energy source and a nutritional source (the host).

For the Variola virus the only hosts are humans. The smallpox is transmitted generally by droplet infection into the respiratory system, i.e., sneeze, cough). It can also be transmitted by infected clothing, blankets, or bedding.

Because humans are the only hosts for this virus, and because of the mode of transmission and infection, it is known as a 'crowd disease'. It requires large, urban, densely populated areas for it to incubate and spread rapidly, the cause of epidemics. This virus can also lie dormant in a dried state for up to 13 years, and when conditions for its infection are optimum, it will again infect in epidemic proportions.

III. Symptoms and Progression of smallpox infection:

When transmission occurs there is an incubation period of 7 to 18 days when there are no symptoms. After incubation, fever occurs that lasts throughout the infection with headaches and body pains lasting two days. After two weeks a rash develops leading to red spots beginning on the face, hands, and feet and spreading to all parts of the body. These spots become raised lesions filled with watery fluid (similar to a blister) about the size of a dime, which transforms into pustules as hard scabs form on the skin surface. The dried scabs fall off leaving the characteristic 'pock marks. At this stage, the host is no longer contagio

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If the scabs do not form, the sores move from the skin to the lining of the mouth and the throat preventing a person from eating and causes great difficulty in swallowing. Sores will enlarge and join forming lesions that hemorrhage. Within one month from time of infection, the skin will literally slide off the body exposing raw muscle and bone, causing death.

IV. Mortality Rates and major Non-European Epidemics:

There is no cure for smallpox. Vaccination has allowed us to control the disease and prevent it's spread. Additionally, if a person survives an epidemic, he/she obtains immunity and can not be reinfected.

However, epidemics create great mortality rates. Complications such as pneumonia, pleurisy, and blindness add to the mortality rates. These rates are also higher for infants, children, elderly, and pregnant women.

Epidemics did not occur in the Americas until the early 1500's for several reasons.

1. **The population was isolated from the virus.**
2. **The civilizations of the Americas were many years behind Europe and Asia in the domestication of animals.**

MAYA BALL COURT GAME

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LESSON PLANS (45 Minute Session)

OBJECTIVES:

1. The student will actively simulate the Ball Court Game of the Classic Period.
2. The student will obtain knowledge of the rules and history of the Maya Ball Court Game.

ACTIVITIES:

1. The teacher will introduce a brief history of the Ball Game.

The Ball Game was related to religious rituals and often played on the eve of a conquest. In some cases, the players were believed to be captives trying to win their freedom. The Ball Game and Ball Courts have been connected to the Classical Period. Today, they are still played for sport in many Meso-American areas.

The Ball Courts did not have standard dimensions. Most have been found to have a playing field with wide, slanted sides. Courts were made of clay or grass. Most courts are no more that 70 feet long and 45 feet wide. The layout of the court was related to various astronomical orientations. The object of the game was to put a large rubber ball through a hoop that hangs on either side of the court. The game was played very aggressively and often resulted in injury.

The ballplayers used pads and thick clothing to protect themselves from both the ball and the clay court. They also wore leather belts called yokes over the hips around the waist. These belts were often fitted with wood or stone pieces that could be used to keep the ball in play. In some cases, pads were worn on the elbows and knees.

It is believed that in some games, the winning Captain or other team members were sacrificed at the conclusion of the game.

2. The teacher will give a brief description of the rules of the Ball Game.

The Ball Game has been compared to soccer, volleyball, and handball. The players are not allowed to hit the ball with their hands or feet. Most of the time the ball is contacted with the hip and attempts are made to put the ball through a hoop that is hanging on either side of the Ball Court. A center line is determined and players must stay on their own side of the court. If the ball touches the floor on a side, the opposing team is awarded a point. The first team to score by putting the ball through the hoop wins the game. (Alternate scoring procedure - play 10 minutes and keep points. The team with the most points wins that game if the ball is not put through the hoop.)

3. The student will play a modified version of the Maya ball court game.

The teacher divides the class into teams of 4 or 5 players. Each team plays a 10 minute game (unless a ball is put through the hoop). The winning teams play each other for the class Championship game.

EQUIPMENT NEEDED:

1. Rubber ball or inflated ball of substantial size (approximately 12-18 in.). The ball needs to be bouncy.

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2. Two hoops attached to either side of the court. Small hula hoops can be used or other circular item. They should be hung no more that four or five feet off of the ground. (The ancient Ball Courts show the hoops located at the top of the slanted walls. The degree of difficulty increases the higher the hoops are placed.)
3. Ball Court - a playing surface with side walls. A small gym or large room is recommended. The court needs to have a center line.

ASSESSMENT:

1. Student participation
2. Teacher observation

WEBSITE RESOURCES:

1. www.britannica.com (search - type in Maya ball game, then go to Classic Central Vera Cruz.)
2. www.google.com (search - type in Maya ball game)
3. http://abcnews.go.com/sections/science/DailyNews/ballcourt980429.html
4. www.artic.edu/aic/collections (Go to African/Amerindian, go to Maya Ball Court)
5. www.elmuseo.org/taino/ballgame
6. www.mesoweb.com - Go to encyclopedia – Select letter B: ballgame (pictures of various courts can be found at this website.)

WEBSITE FOR EXTENDED ACTIVITIES:

1. www.siloam.net/jenkins

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Government Lesson

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Assignment 1:
Objectives:
1. The student will be able to describe the three types of government involved in the project.
2. The student will be able to list examples of each type of government and explain their advantages and disadvantages.

Activity:

After a brief introduction by the teacher the students will be given a website to find the information about the three types of government assigned. The students will write a brief summary of each of the three types of government.

Assessment:
1. A hard copy of the summary will be turned in to the instructor for verification.
2. A copy of correct summary will be copied to the student's Virtual Child Project disc (or CD).

Website:
www.funkandwagnalls.com

Ohio Competencies Addressed:
1 – b & c, 8 – a & e, 9

Assignment 2:
Objectives:
1. The students will be able to describe the type of government that their Virtual Child's city employed.
2. The students will be able to state the strengths and weaknesses of their Virtual Child's city government.

Activity:
Each student team will construct a flow chart to present the structure of the government of their Virtual Child's city. The team will also devise an appropriate chart to illustrate the strengths and weaknesses of their Virtual Child's city government

Assessment:
1. A hard copy of both charts will be turned in to the instructor for verification.
2. A digital photograph of both charts will be copied to the student's Virtual Child Project disc (or CD).

Websites:
Classic - www.criscenzo.com/jaguar/contents.html
Classic – www.civilization.ca/membrs/civiliz/maya/mmc12eng.html
Colonial – http://www.infoplease.com/ce6/society/A0859548.html
Colonial – http://www.infoplease.com/history/A0817314.html
Contemporary – http://search.eb.com/bol/topic?eu=118692&sctn=3
Contemporary - http://world.presidencia.gob.mx/pages/government/gov_levels.html – flow chart of Mexico's federal government
Contemporary - http://www.globalexchange.org/campaigns/mexico/chiapas/communities/ruleOfLaw.html – information about autonomous municipalities of Chiapas and conflict with federal government
Contemporary - http://www.mexconnect.com/mex_/travel/charlan/chtuxtla1.html – information about Tuxtla Gutierrez
Contemporary - http://explora.presidencia.gob.mx/index_kids.html – Simplified information on the federal and state governments of Mexico and many other activities about Mexico. Includes sound files of typical folkloric music.

Ohio Competencies Addressed:
2, 3 – c, 8 – a & e, 9

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LESSON PLANS FOR LANGUAGE ARTS

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Part I. Relevance to Ohio State Proficiencies in Language Arts

I. Reading

A. Use reference sources and illustrative materials
   1. Electronic
      (a) internet
      (b) CD ROM programs
      (c) data banks
   2. traditional
      (a) dictionaries
      (b) encyclopedias
      (c) *Reader's Guide to Periodical Literature*
      (d) periodicals, newspapers, magazines, television, experts, etc.
      (e) charts, graphs, diagrams, maps, tables, etc.

B. Distinguish fact vs. opinion

C. Identify supporting vs. non-supporting ideas

D. Constructing word meaning
   1. from text and content clues
   2. from extended meanings
      (a) denotative
      (b) connotative

E. Produce summaries or paraphrases

F. Predict outcomes

II. Writing

A. Compose written segments of the visual aid project incorporating
   1. clear sense of beginning, middle, and end
   2. standard use of English grammar and mechanics
   3. documentation of appropriate reference material

B. Produce an appropriate visual aid by creating one of the following:
   1. Story book (must include illustrations)
   2. Video presentation (must include story board)
   3. Biographical web site for the virtual child (must include graphics and at least five links)
   4. Skit complete with props and rudimentary scenery (must submit written text)

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Part II. Student Instructions

I. Objectives

A. To learn and research information about a specific time period in the history of the state of Chiapas, Mexico

B. To use that knowledge to produce one of the following:

5. Story book (must include illustrations)
6. Video presentation (must include story board)
7. Biographical web site for the virtual child (must include graphics and at least five links)
8. Skit complete with props and rudimentary scenery (must submit written text)

C. To incorporate the following communication skills in written segments of the project

4. clear sense of beginning, middle, and end
5. standard use of English grammar and mechanics
6. documentation of appropriate reference material

II. Steps for achieving the objectives (Note: suggested times are maximum time limits! Whenever possible, save time (finish early)! Your group will need the extra time for the "production part" of the assignment!

A. Choose a group leader **and** a recorder (three minutes)

B. Decide which of the product choices you will create (5 minutes)

C. Examine the models of the product choice you made (20 minutes)

D. Brainstorm ideas to incorporate into your product (15 minutes)

III. Sessions two and three

A. Discuss and edit individual contributions of group members

B. Select and produce the final project

IV. Web sites to examine

A. www.mla.org

B. www.howiemandel.com

C. http://athena.english.vt.edu/OWL_WWW/owl.html - writing lab

Lesson Plan: "Communication and Conflict"

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August, 2000

Course: Interdisciplinary project – "The Maya and Conflict" -
(funded by a grant from the **National Endowment for the Humanities,** ***Schools for the New Millennium,*** Planning Grant)
Disciplines involved in Interdisciplinary Project: Spanish, language arts, art, social studies, home economics, physical education, math, science, and music (band)
level: grades 9 and 10
time needed: 45 minutes for this presentation; entire project is one five-day school week, all day every day, with a follow-up half-day afternoon session for displaying final products of teams and a debate/forum for discussion of conflict resolutions – parents and public invited.

OBJECTIVES

Students will:
1. develop a sense of the power of language.
2. learn the definition of language.
3. explain when different languages spoken in the same country become a source of violent conflict.
4. discover the different Mayan languages represented in the state of Chiapas, Mexico.
5. realize the close ties between language and culture.

MATERIALS NEEDED:

Paper
Index cards
Marker or pen
Screen or white wall
Computer
LCD projector
Power Point Slide Program (see Slide show after the Follow-up activities)

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PROCEDURES

After the students have been seated, the teacher will then ask them to all stand and arrange them in single file around the room, placing a piece of plain white paper on the floor with the word, "**dirt**" printed plainly on the paper. The teacher asks the students to walk up to the paper, look at it and read the word, step on it, then continue to the end of the line. After everyone has done this, the teacher picks up the paper and replaces it with another sheet of paper with the word, "**GOD**", printed on it. The same instructions as before are given to the students. (Hopefully, when they come up to the paper and read it, they will not step on it.) After a few minutes, the teacher asks the students to sit down. He(she) starts the Power Point Slide Presentation entitled, "Language and Conflict". She stops it with the slide that says "Language is powerful!" He asks the students why they did not step on the second sheet of paper. He elicits responses that the written symbol has a certain meaning for us English speakers.

He shows the slide, "What is language", and elicits responses from students. He writes them on the board as they say their definitions. Then he shows the next slide with the definition of language.
On the next slide is a picture of a tree. The teachers asks the students, "What is this?" and they all say "a TREE". The teacher can write this word on the board and ask why did everyone say that? Yes, we speak English. We were taught that by our parents. But initially all English speakers had a social contract or agreement that that image would be known as a "TREE."

The teacher holds up a paper bag and asks "What is this?" They answer a "BAG." But in some parts of West Virginia it is known as a "POKE." " So, that group agreed to call it another word. In that subculture it is known as something else. Would you call it a POKE? Probably not. Language is closely related to culture. We might say that we sound like a "hillbilly" if we used that word."

Then, the teacher hands out index cards to each student and shows the slide with the IDENTITY adjectives. He asks them to choose the word that best identifies themselves and write it down on the card. Then, he instructs them to get up and move to their "identity" group. He changes the slide to the nonsense words. Each group works together on defining the four nonsense words according to their identity. The teacher silently chooses a number between 0and 100 and writes it down on a piece of paper that the students can not see. He has each group choose a number. Whichever group comes closest to the number is told to come up in front of the class. They are then instructed by the teacher to tell the others to throw away their definitions of the four nonsense words.

They then "teach" the class what these four words mean and ask them to repeat them and have students use them correctly in a sentence.

Hopefully, knowing teenagers, the rest of the class will protest, saying "Why should we have to throw away our definitions and use yours?" Good question! Why should they? The teacher shows the slide, "When do different languages in the same country become a source of conflict?" The students discuss this.

The next slide is shown with the quote from Itamar Even-Zohar explaining when it does become a source of conflict.

The teacher shows the next slide with the groups of Maya living in Chiapas, Mexico. The students are working in teams of four and have previously been assigned a certain period of the history of the Maya (classic, colonial or contemporary) and a certain city that coincides with that period (Palenque, San Cristobal de Las Casas, or Tuxtla Gutierrez). The approximate location of them can be pointed out.

The next slide is shown with locations of civilian paramilitary groups and the next slide with the location of the federal Mexican troops, and the last slide with Zapatista presence. The teacher can point out that language is not the only reason for such an escalation of conflict, but it is part of it.

The teacher can also point out that Spanish is the official language of Mexico and Mayan is spoken by some indigenous groups there. The culture is part of the language. In Spanish there are two ways to say "you," depending on to whom one is speaking, and in Mayan there is only one. Equality is built into the Mayan language.

ASSESSMENT –

1) teacher observation, full participation by students in activities

2) words for *mother* in Spanish and Mayan dialect will be presented to group advisor on hard copy and saved to disk at a later time- (see "Virtual Child" part of the project – Education section)

FOLLOW-UP ACTIVITIES

Research web sites that are given here but will be sent via email to the students. The students are "building" a Virtual Maya Child with their team. They also are sent *guiding questions and tasks* via email. For those questions and tasks see main page of project.

Establish communication via email with young people in the state of Chiapas.

(contact with the university in Tuxtla Gutierrez was made to try to find Maya youths)

BIBLIOGRPAHY

Internet

The United States Institute for Peace
URL: http://www.usip.org – Search Library –Chiapas Conflict Web Links – Maps – Maya groups in Chiapas

Chart of Family of Mayan Languages
URL: http://www.civilization.ca/membrs/civiliz/maya/images/mmlang1b.gif

Dictionaries of all Mayan languages
URL:http://maya.hum.sdu.dk - Type in English and Spanish and Mayan words appear.

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Itamar Even-Zohar. 1997. "Language Conflict and National Identity." Paper presented to Reuben Hecht Chair of Zionism Conference, University of Haifa, Jan. 23, 1985.
URL: http://www.tau.ac.il:81/~itamarez/papers/lngconfl.htm

Robert McCaa and Heather Mills. 1998. "Is Education Destroying Indigenous Languages in Chiapas?" Minneapolis, Minnesota. University of Minnesota Press.
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CONNECTIONS TO STATE OF OHIO PROFICIENCIES

Citizenship Competencies	**People in Societies - 3. B & c.**
Ohio and Columbiana County Foreign Language Comptencies	Cultural Knowledge – Ninth Grade 2., 3., 7. Multidisciplinary Connections, Information and Knowledge Ninth Grade – 1. Insight into the Nature of Language and Culture Ninth Grade – 3. Participation in Multilingual Communities at Home and Around the World

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